



Oregon

Kate Brown, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregon.gov/dsl

State Land Board

October 12, 2022

Robert Evans Company
Attn: Ryan Sanchez, Vice President of Development
1927 NW Pettygrove Street
Portland, OR 97209

Kate Brown
Governor

Shemia Fagan
Secretary of State

Re: WD # 2022-0166 **Approved**
Wetland Delineation Report for Sherwood Industrial Park Phase 3
Washington County; T2S R1W S29D TLs 151 and 150 (Portion)
RGL # 1758, Sherwood Local Wetlands Inventory, R-3, R-5, and R-6

Tobias Read
State Treasurer

Dear Ryan Sanchez:

The Department of State Lands has reviewed the wetland delineation report prepared by Pacific Habitat Services for the site referenced above. Please note that the study area includes only a portion of the parcels described above (see the attached maps). Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figure 6, 6A through 6G of the report. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the study area, 3 wetlands (Wetland A, B, and Wetland Ditch, totaling approximately 7.78 acres), Rock Creek, and a portion of a compensatory wetland mitigation (CWM) area (RGL 1758, totaling approximately 9.79 acres) were identified. The wetlands, creek, and CWM area are all subject to the permit requirements of the state Removal-Fill Law. Normally, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined). However, Rock Creek is an essential salmonid stream. Therefore, fill or removal of any amount of material below the creek's OHWL or within hydrologically connected wetlands (Wetland A) may require a state permit. In addition, any amount of fill or removal within a CWM area may require a permit and higher mitigation ratios.

This concurrence is for purposes of the state Removal-Fill Law only. We recommend that you attach a copy of this concurrence letter to any subsequent state permit application to speed application review. Federal, other state agencies or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine

jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact Chris Stevenson, PWS, the Jurisdiction Coordinator for Washington County at 503-986-5246.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Ryan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Peter Ryan, SPWS
Aquatic Resource Specialist

Enclosures

ec: Carlee Michelson, Pacific Habitat Services
City of Sherwood Planning Department
Trey Fraley, Corps of Engineers
Michael De Blasi, DSL
Lindsey Obermiller, Clean Water Services

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

A complete report and signed report cover form, along with [applicable review fee](#), are required before a report review timeline can be initiated by the Department of State Lands. All applicants will receive an emailed confirmation that includes the report's unique file number and other information.

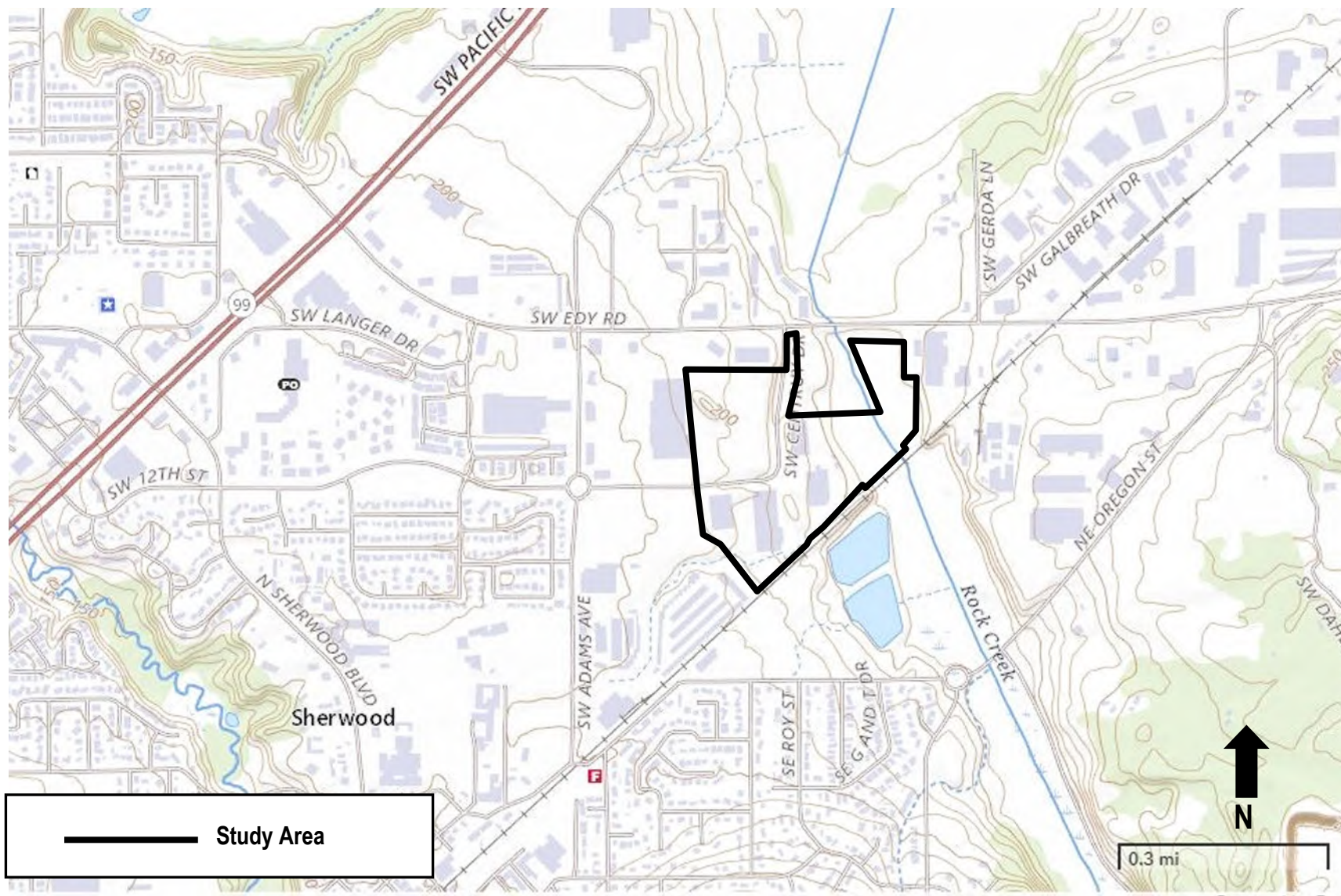
Ways to submit report:

- ❖ **Under 50MB** - A single unlocked PDF can be emailed to: wetland.delineation@dsl.oregon.gov.
- ❖ **50MB or larger** - A single unlocked PDF can be uploaded to [DSL's Box.com](#) website. After upload notify DSL by email at: wetland.delineation@dsl.oregon.gov.
- ❖ **OR** a hard copy of the unbound report and signed cover form can be mailed to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.

Ways to pay review fee:

- ❖ By credit card on [DSL's epayment portal](#) after receiving the unique file number from DSL's emailed confirmation.
- ❖ By check payable to the Oregon Department of State Lands attached to the unbound mailed hardcopy **OR** attached to the complete signed cover form if report submitted electronically.

Contact and Authorization Information	
<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Ryan Suarez, Vice President of Development Robert Evans Company 1922 NW Pettygrove Street Portland, OR 97209	Business phone # (503) 648-7085 Mobile phone # (optional) E-mail: ryans@robertevansco.com
<input type="checkbox"/> Authorized Legal Agent, Name and Address (if different):	Business phone # Mobile phone # (optional) E-mail:
I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.	
Typed/Printed Name: <u>Ryan Suarez</u> Signature: <u>Ryan Suarez</u>	
Date: <u>03/16/2022</u> Special instructions regarding site access: _____	
Project and Site Information	
Project Name: Sherwood Industrial Park Phase 3 Delineation	Latitude: 45.3666 Longitude: -122.8292 decimal degree - centroid of site or start & end points of linear project
Proposed Use: Development	Tax Map #2S129D Tax Lot(s) 150 & 151 Tax Map # Tax Lot(s)
Project Street Address (or other descriptive location): SW Century Drive at SW Tualatin-Sherwood Hwy	Township 2S Range 1W Section 29D QQ Use separate sheet for additional tax and location information
City: Sherwood County: Washington	Waterway: River Mile:
Wetland Delineation Information	
Wetland Consultant Name, Firm and Address: Carlee Michelson Pacific Habitat Services, Inc. 9450 SW Commerce Circle, Ste 180 Wilsonville, OR 97070	Phone # (503) 570-0800 Mobile phone # (if applicable) E-mail: cm@pacifichabitat.com
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.	
Consultant Signature: <u>Carlee Michelson</u>	Date: 03/14/2022
Primary Contact for report review and site access is <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent	
Wetland/Waters Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Study Area size: 60.8 Total Waters Acreage: 0.5000
Check Applicable Boxes Below	
<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> EFSC/ODOE Proj. Mgr: _____ <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input checked="" type="checkbox"/> Previous delineation/application on parcel If known, previous DSL # <u>WD19-0535</u>	<input type="checkbox"/> Fee payment submitted \$ _____ <input type="checkbox"/> Resubmittal of rejected report (\$100) <input type="checkbox"/> Request for Reissuance. See eligibility criteria. (no fee) DSL # _____ Expiration date _____ <input checked="" type="checkbox"/> LWI shows wetlands or waters on parcel Wetland ID code <u>R-3, R-5, R-6</u>
For Office Use Only	
DSL Reviewer: <u>CS</u>	Fee Paid Date: ____ / ____ / ____
Date Delineation Received: <u>03 / 17 / 2022</u>	DSL WD # <u>2022-0166</u> DSL App.# _____



Project #7296
10/27/2021

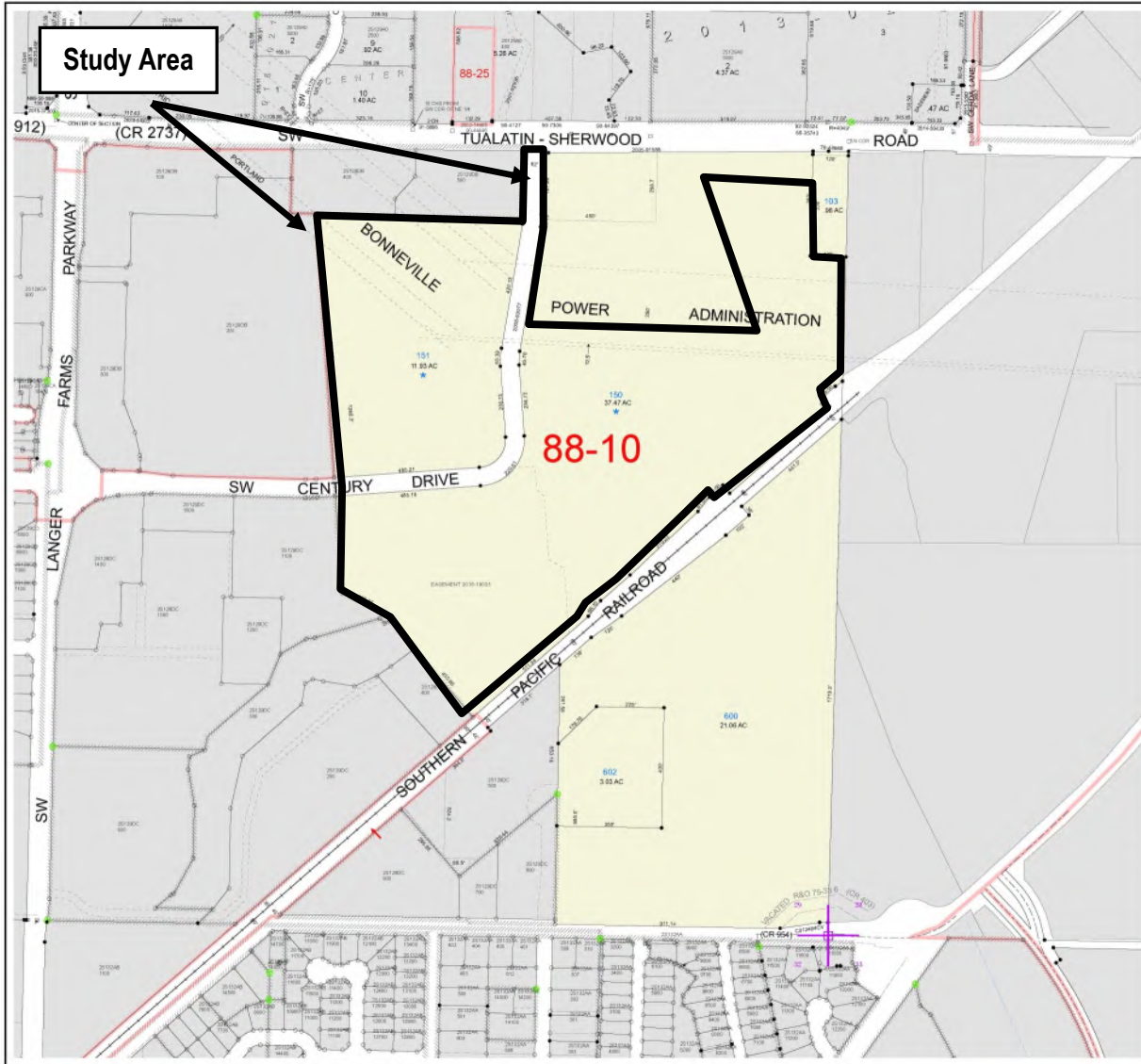


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
 Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
 United States Geological Survey (USGS) Sherwood, Oregon 7.5 quadrangle, 2022
 (viewer.nationalmap.gov/basic)

FIGURE

1



2S129D

WASHINGTON COUNTY OREGON
SE 1/4 SECTION 29 T2S R1W W.M.
SCALE 1"= 200'

39	31	23	35	34	29	35	31
6	5	4	3	2	1	6	
12	7	8	9	10	11	12	
18	17	16	15	14	13	18	
24	19	20	21	22	23	24	19
30	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31
36	31	32	33	34	35	36	31

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT
www.co.washington.or.us

BB	BA	AB	AA
B		A	
BC	BD	AC	AD
CB	CA	DB	DA
C		D	
CC	CD	DC	DD

Cancelled Taxlots For: 2S129D
401,402,500-A1,104,200,400,403,501,101,102,500,700,800,900,1000,
1100,120,901.

SECTION 29

Feet
0 100 200 400 600

PLOT DATE: 2/18/2021
Revision:
**FOR ASSESSMENT PURPOSES
ONLY - DO NOT RELY ON
FOR OTHER USE**

Map areas delineated by other group plotting or a cross-hatched pattern
are for reference only and may not indicate the final correct property boundaries.
Please consult the appropriate map for the most current information.

SHERWOOD
2S129D



Project #7296
10/27/2021

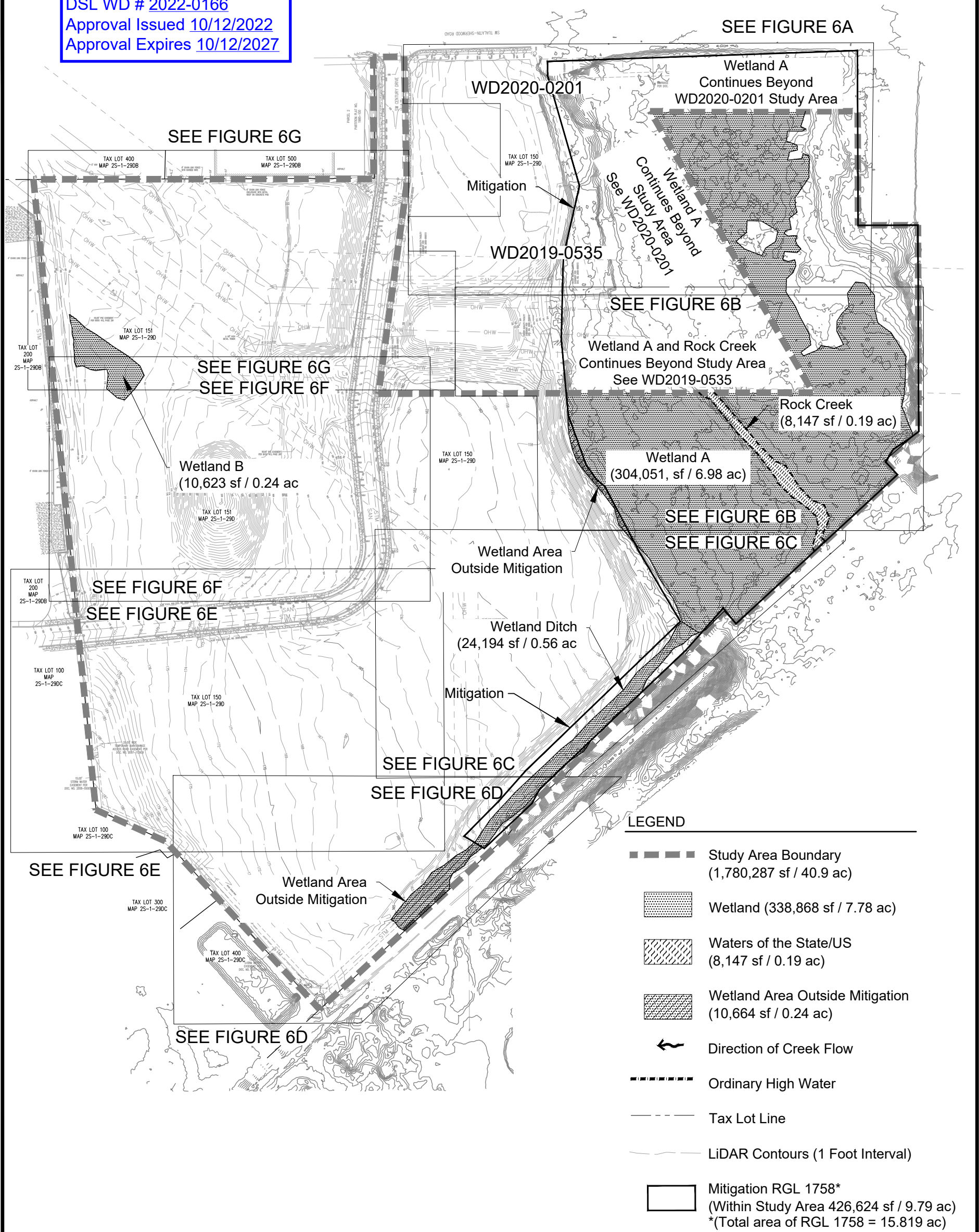


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

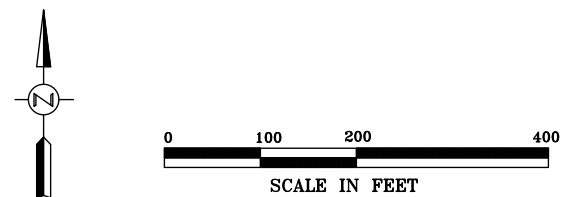
Tax Lot Map
Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
The Oregon Map (ormap.net)

FIGURE
2

DSL WD # 2022-0166
 Approval Issued 10/12/2022
 Approval Expires 10/12/2027



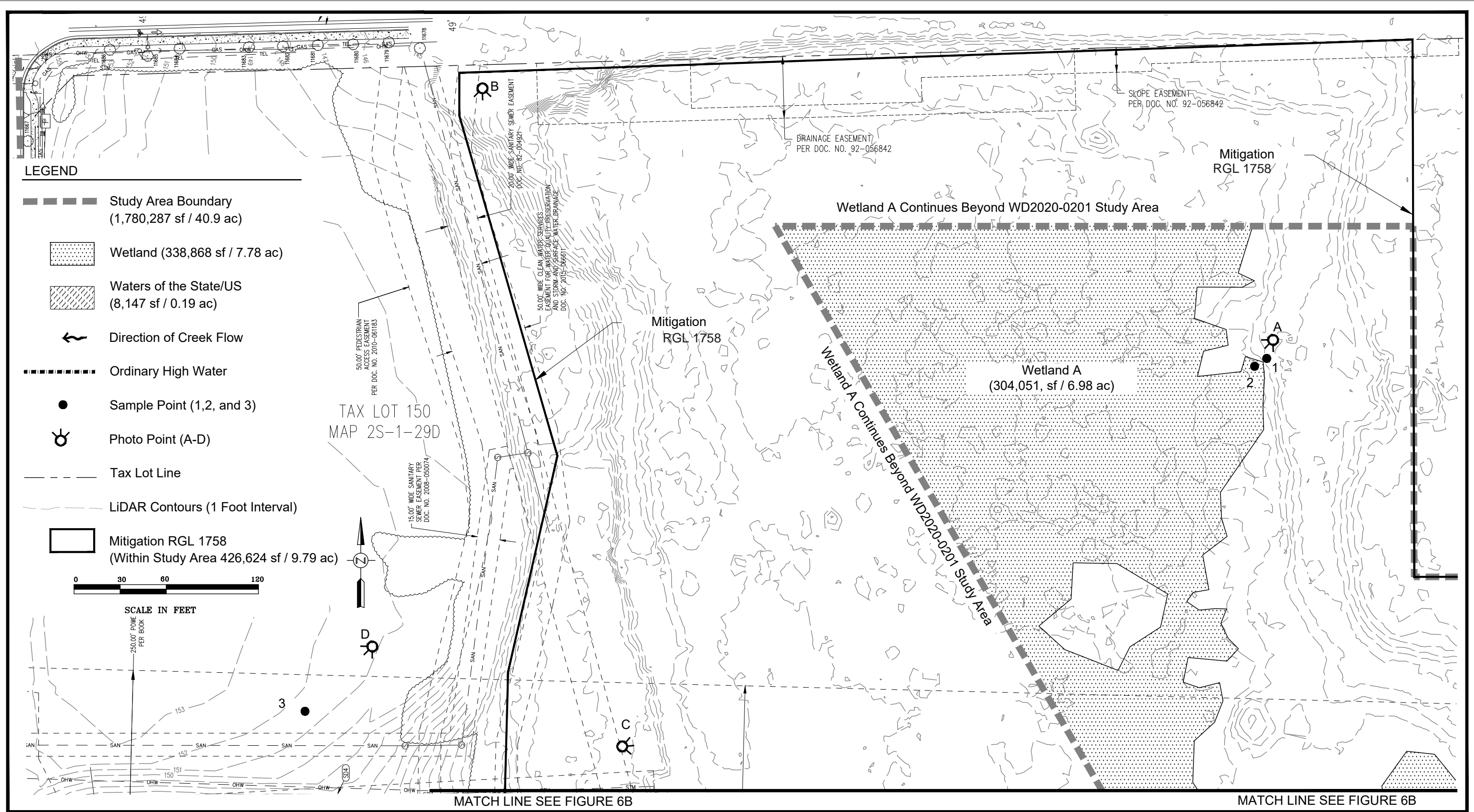
Survey provided by NW Surveying Inc. Survey and Sample point accuracy is sub-centimeter. LiDAR has ± 3 feet accuracy.



Wetland Delineation Overview and Sheet Index
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6

10-11-2022



- LEGEND**
- Study Area Boundary (1,780,287 sf / 40.9 ac)
 - Wetland (338,868 sf / 7.78 ac)
 - Waters of the State/US (8,147 sf / 0.19 ac)
 - ← Direction of Creek Flow
 - Ordinary High Water
 - Sample Point (1,2, and 3)
 - ⊙ Photo Point (A-D)
 - - - Tax Lot Line
 - - - LiDAR Contours (1 Foot Interval)
 - ☐ Mitigation RGL 1758 (Within Study Area 426,624 sf / 9.79 ac)

0 30 60 120
SCALE IN FEET

250.00' POME PER BOOK



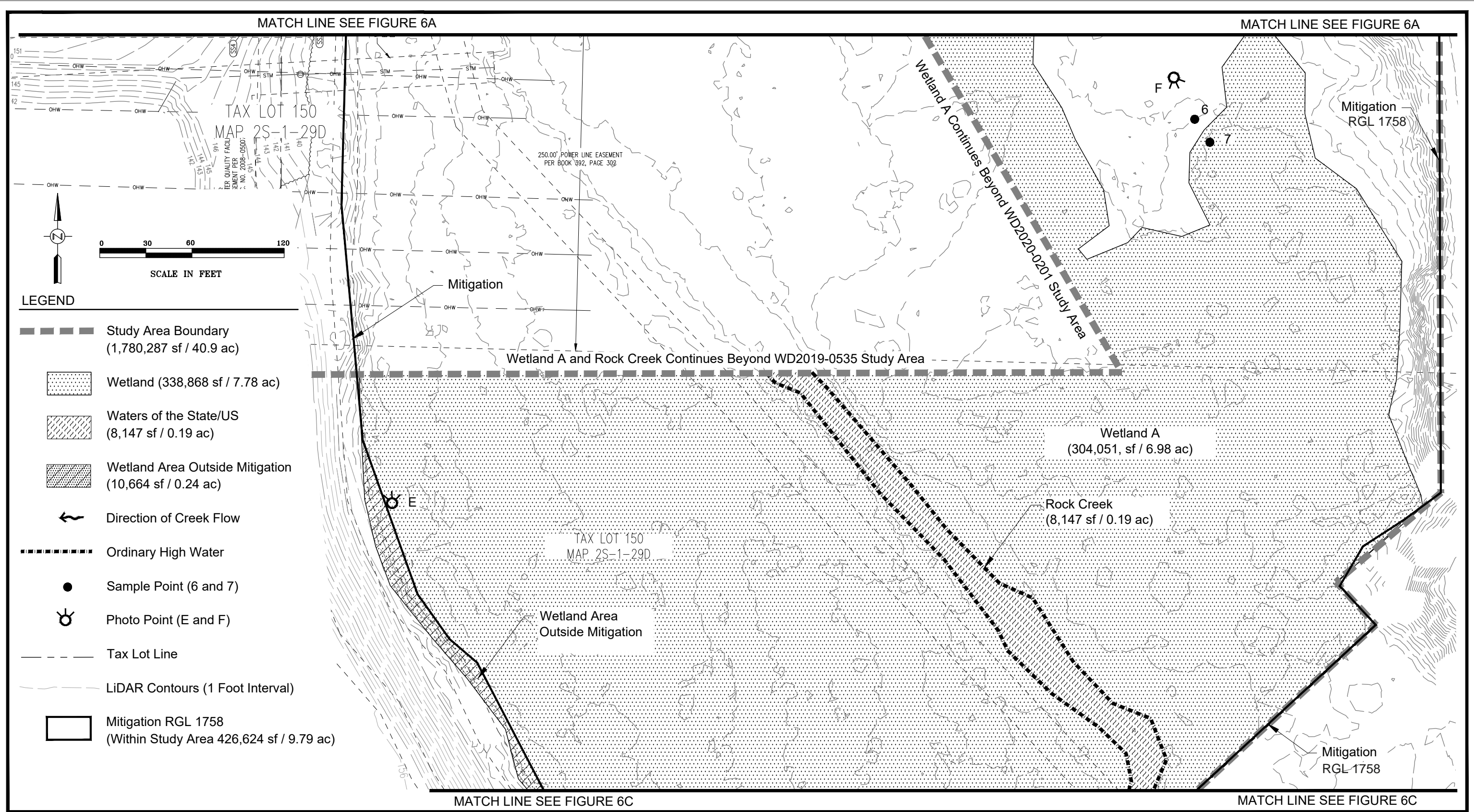
Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

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Approval Issued 10/12/2022
Approval Expires 10/12/2027

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6A

10-11-2022



- LEGEND**
- Study Area Boundary (1,780,287 sf / 40.9 ac)
 - Wetland (338,868 sf / 7.78 ac)
 - Waters of the State/US (8,147 sf / 0.19 ac)
 - Wetland Area Outside Mitigation (10,664 sf / 0.24 ac)
 - ← Direction of Creek Flow
 - Ordinary High Water
 - Sample Point (6 and 7)
 - ⊙ Photo Point (E and F)
 - - - Tax Lot Line
 - - - LIDAR Contours (1 Foot Interval)
 - Mitigation RGL 1758 (Within Study Area 426,624 sf / 9.79 ac)



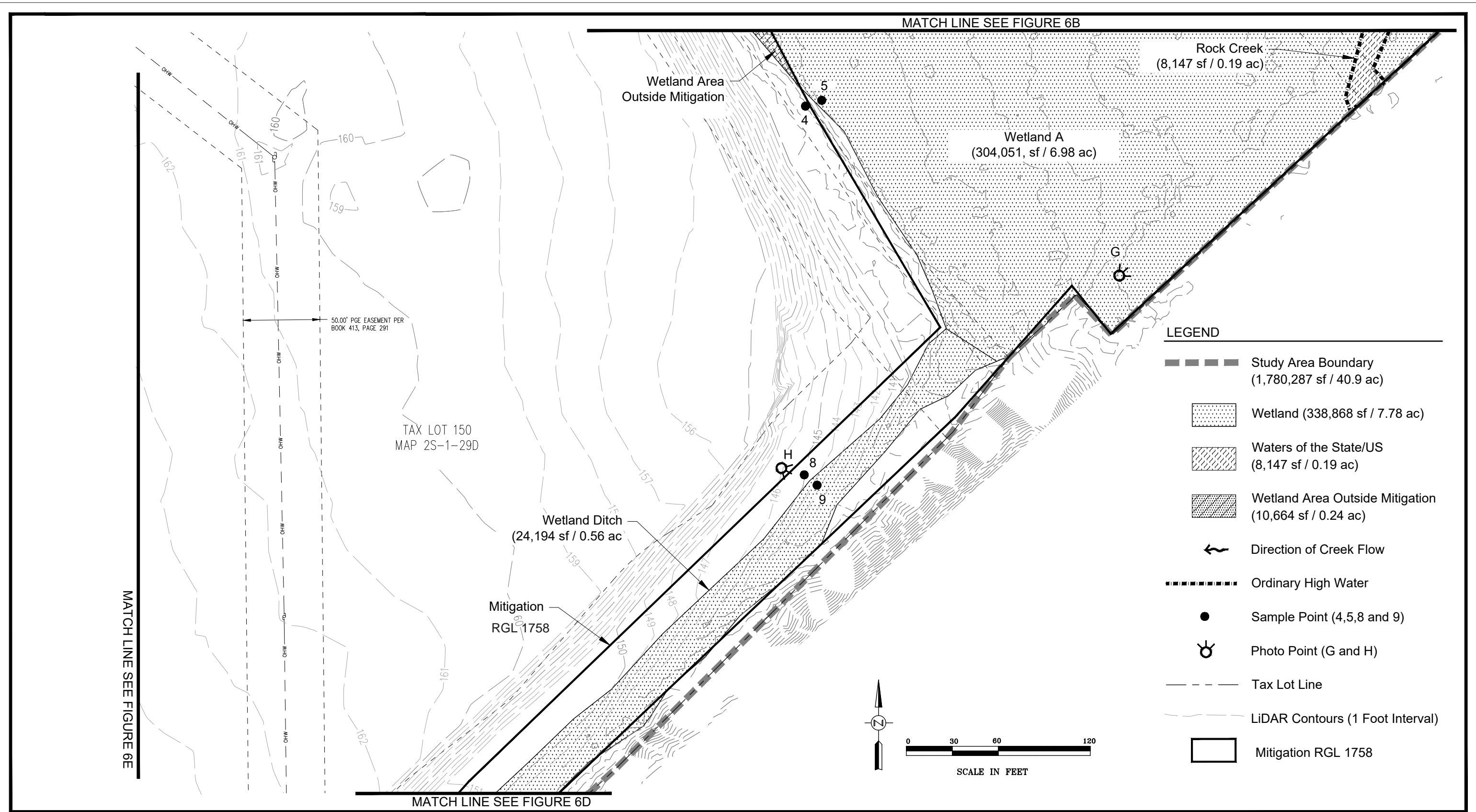
Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

DSL WD # 2022-0166
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






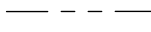


Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6B

10-11-2022



LEGEND

	Study Area Boundary (1,780,287 sf / 40.9 ac)
	Wetland (338,868 sf / 7.78 ac)
	Waters of the State/US (8,147 sf / 0.19 ac)
	Wetland Area Outside Mitigation (10,664 sf / 0.24 ac)
	Direction of Creek Flow
	Ordinary High Water
	Sample Point (4,5,8 and 9)
	Photo Point (G and H)
	Tax Lot Line
	LiDAR Contours (1 Foot Interval)
	Mitigation RGL 1758



Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

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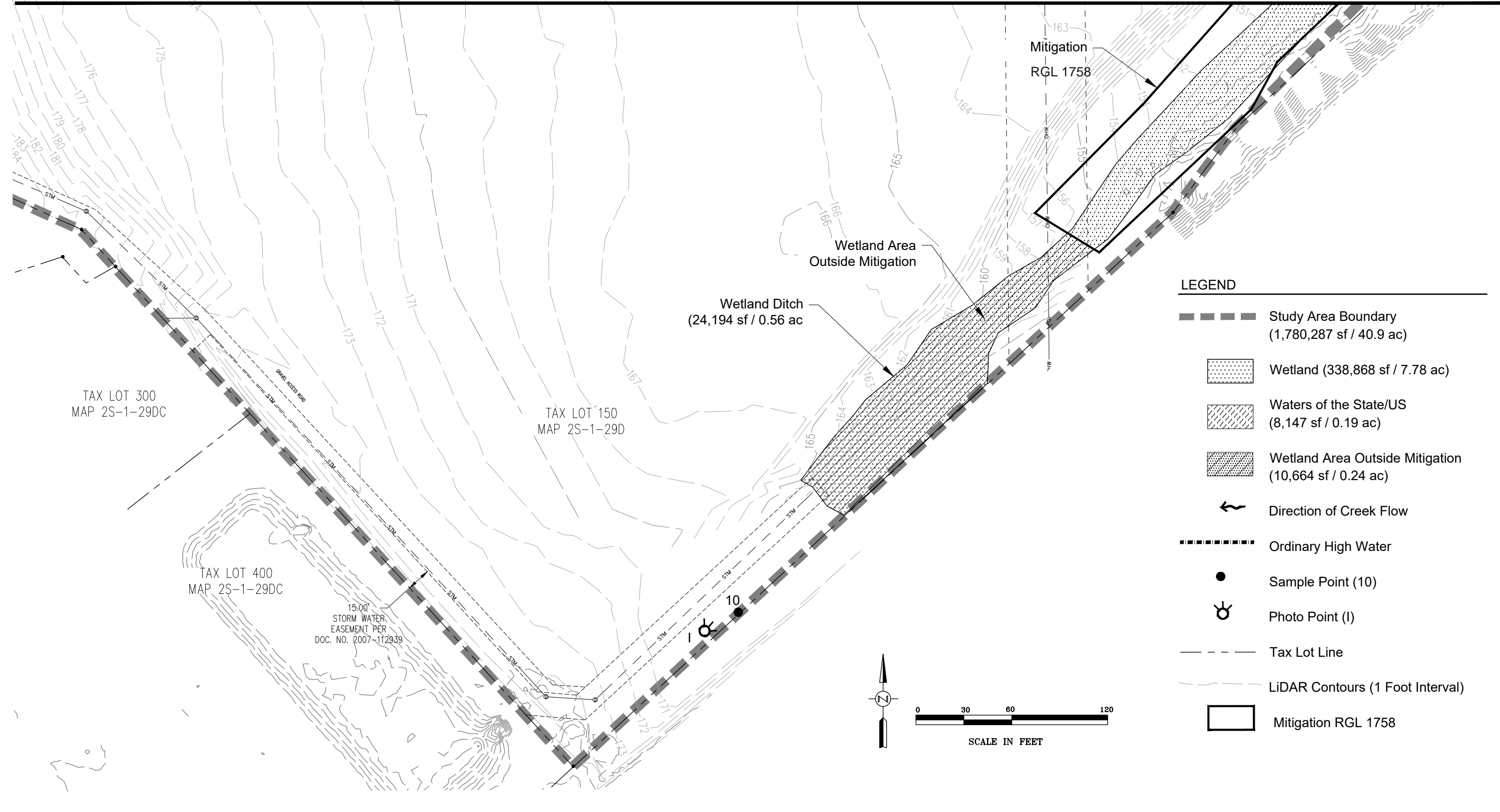
Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6C

10-11-2022

MATCH LINE SEE FIGURE 6E

MATCH LINE SEE FIGURE 6C



LEGEND

- Study Area Boundary (1,780,287 sf / 40.9 ac)
- Wetland (338,868 sf / 7.78 ac)
- Waters of the State/US (8,147 sf / 0.19 ac)
- Wetland Area Outside Mitigation (10,664 sf / 0.24 ac)
- Direction of Creek Flow
- Ordinary High Water
- Sample Point (10)
- Photo Point (I)
- Tax Lot Line
- LiDAR Contours (1 Foot Interval)
- Mitigation RGL 1758



Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

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Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6D

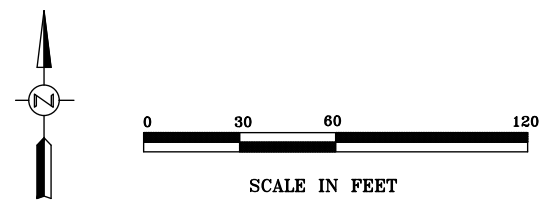
10-11-2022

MATCH LINE SEE FIGURE 2F

MATCH LINE SEE FIGURE 2F



- LEGEND**
- Study Area Boundary (1,780,287 sf / 40.9 ac)
 - Wetland (338,868 sf / 7.78 ac)
 - Waters of the State/US (8,147 sf / 0.19 ac)
 - Direction of Creek Flow
 - Ordinary High Water
 - Sample point
 - Photo Point
 - Tax Lot Line
 - LiDAR Contours (1 Foot Interval)



Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

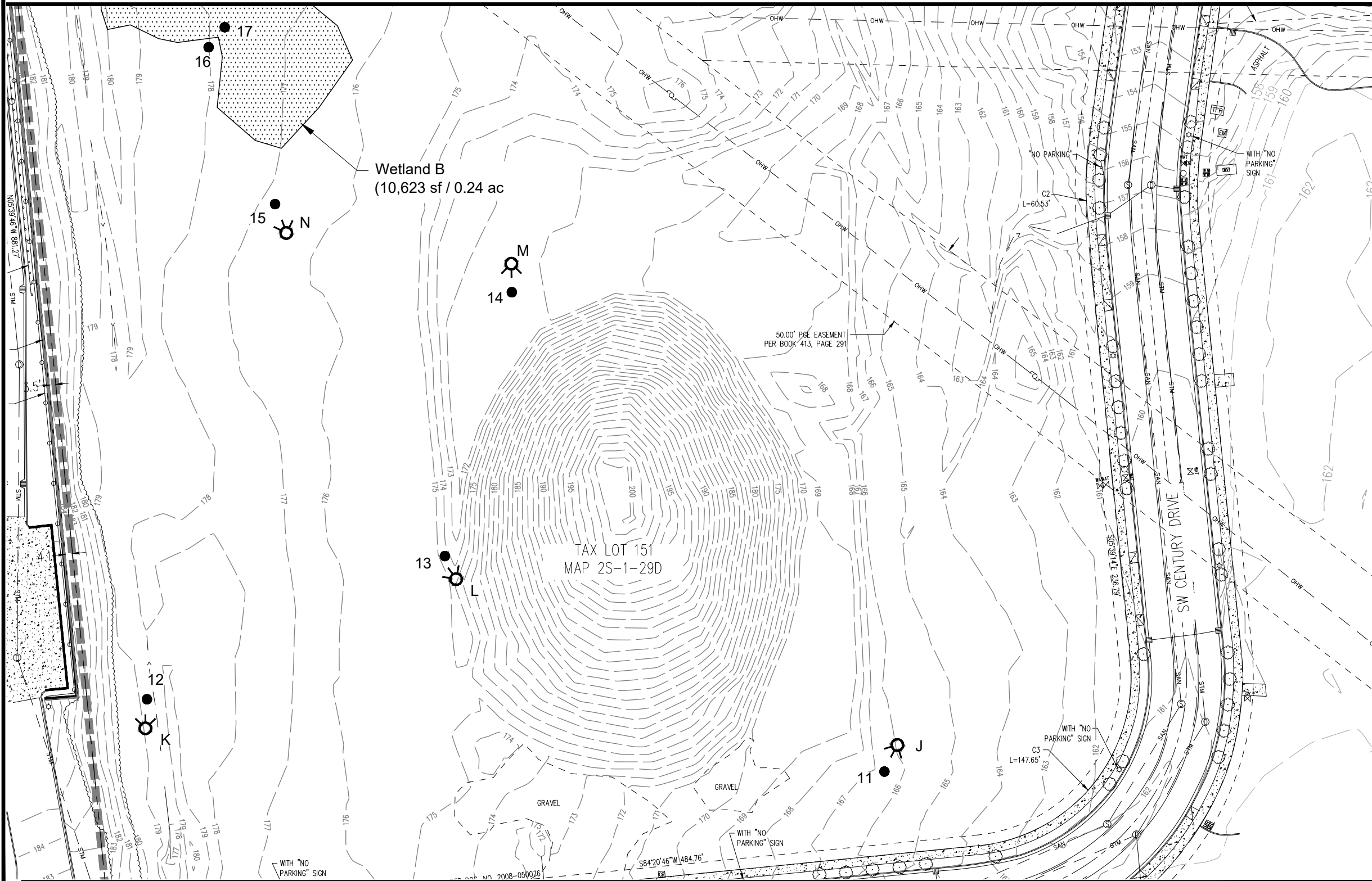
DSL WD # 2022-0166
 Approval Issued 10/12/2022
 Approval Expires 10/12/2027

Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6E

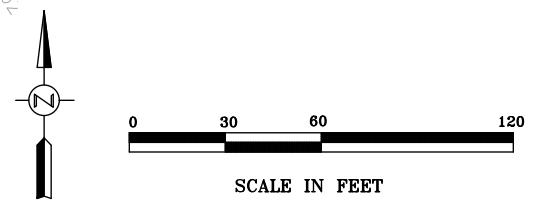
7-20-2022

MATCH LINE SEE FIGURE 6G



LEGEND

- Study Area Boundary (1,780,287 sf / 40.9 ac)
- Wetland (338,868 sf / 7.78 ac)
- Waters of the State/US (8,147 sf / 0.19 ac)
- Direction of Creek Flow
- Ordinary High Water
- Sample point (11-17)
- Photo Point (J-N)
- Tax Lot Line
- LiDAR Contours (1 Foot Interval)



MATCH LINE SEE FIGURE 6E



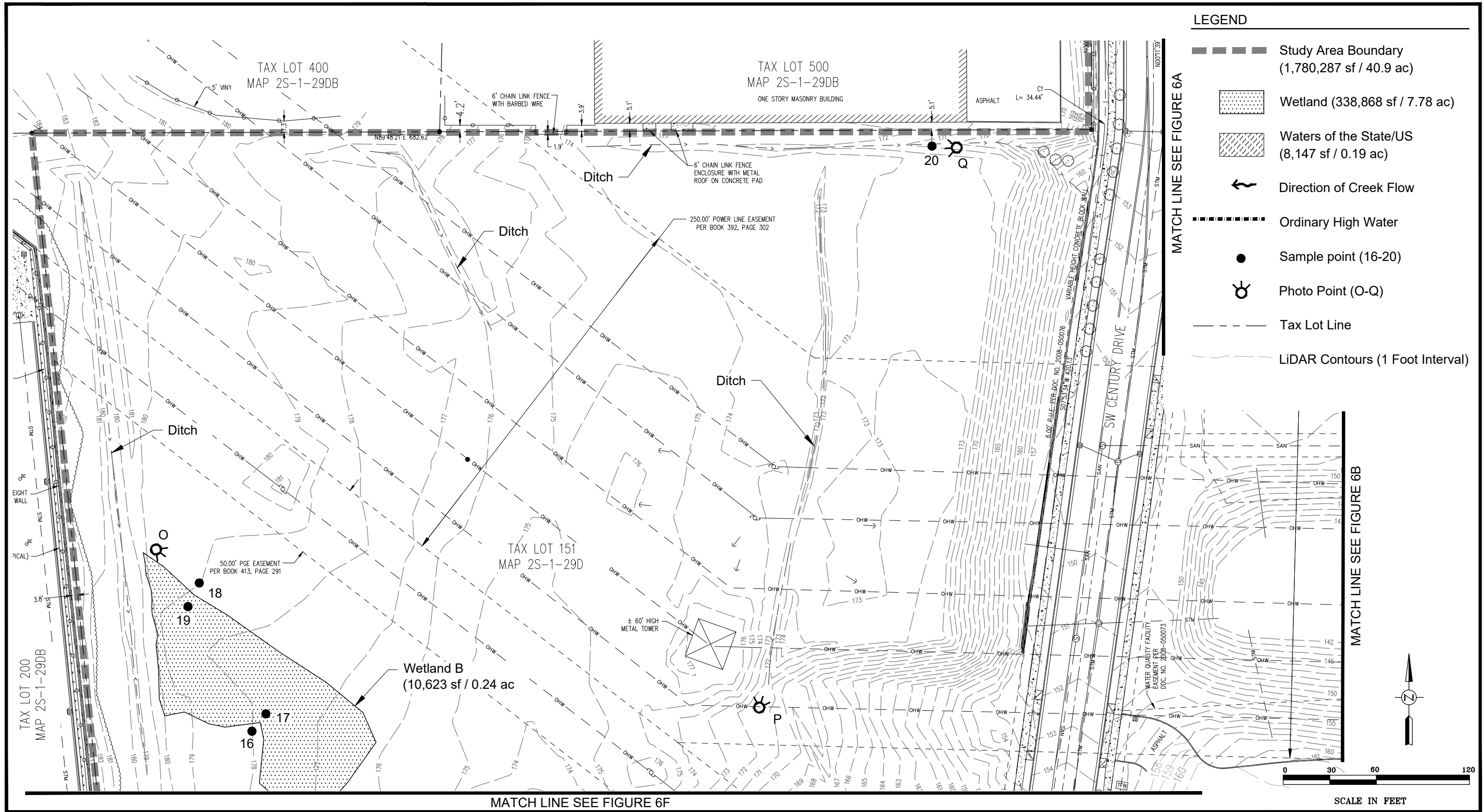
Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

DSL WD # 2022-0166
Approval Issued 10/12/2022
Approval Expires 10/12/2027

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6F

7-20-2022



Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

DSL WD # 2022-0166
 Approval Issued 10/12/2022
 Approval Expires 10/12/2027

Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6G

7-20-2022

Wetland Delineation

Sherwood Industrial Park Phase 3

Development Site, Sherwood, Oregon

(Township 2 South, Range 1 West, Section 29D, Tax Lots 150 & 151)

Prepared for

Ryan Suarez, Vice President of Development
Robert Evans Company
1922 NW Pettygrove Street
Portland, OR 97209

Prepared by

Carlee Michelson, Caroline Rim,
Joe Thompson, PWS, John van Staveren, SPWS
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
(503) 570-0800
(503) 570-0855 FAX

PHS Project Number: 7296

July 8, 2022

Revised: October 13, 2022



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APPENDIX A: Figures

- Figure 1: Vicinity Map (USGS)
- Figure 2: Tax Lot Map
- Figure 3: National Wetlands Inventory Map
- Figure 4: Soil Survey Map
- Figure 5: Recent Aerial Photograph
- Figure 6- Wetland Delineation Map
- 6G:

APPENDIX B: Wetland Delineation Data Sheets

APPENDIX C: Study Area Photos

I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation for a property located along SW Century Drive in Sherwood, Oregon (Township 2 South, Range 1 West, Section 29D, Tax Lots 150 & 151 (portion)). This report presents the results of PHS's delineation of the study area. Figures, including maps depicting the locations of wetlands within the study area are in Appendix A. Data sheets documenting study area conditions are provided in Appendix B. Ground-level photos of the study area are included in Appendix C.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The study area is located directly east and west of SW Century Drive, and south of SW Tualatin-Sherwood Road. Topography slopes gently to the southeast in the northwest parcel (Tax Lot 151), west of Century Drive. Topography in the east parcel (Tax Lot 150) is gently sloping east before a moderate decline in slope occurs toward a low floodplain surrounding Rock Creek, which flows north under SW Tualatin-Sherwood Road. Elevations on-site range between approximately 190 feet and 130 feet (Oregon Metro LiDAR, 2014).

Dominant vegetation in tax lot 151 consists of black cottonwood (*Populus balsamifera*, FAC), Himalayan blackberry (*Rubus armeniacus*, FAC), Scotch broom (*Cytisus scoparius*, (UPL)), velvet grass (*Holcus lanatus*, FAC), Canada thistle (*Cirsium arvense*, FAC), colonial bentgrass (*Agrostis capillaris*, FAC), common teasel (*Dipsacus fullonum*, FAC), orchard grass (*Dactylis glomerata*, FACU), bed straw (*Galium aparine*, FACU), sweet vernal grass (*Anthoxanthum odoratum*, FACU), Kentucky bluegrass (*Poa pratensis*, FAC) and reed canarygrass (*Phalaris arundinacea*, FACW). The riparian area abutting the wetland surrounding Rock Creek includes Oregon ash (*Fraxinus latifolia*, FACW), black cottonwood, Pacific willow (*Salix lasiandra*, FACW), Oregon white oak (*Quercus garryana*, FACU), Douglas fir (*Pseudotsuga menziesii*, FACU), Western hazelnut (*Corylus cornuta*, FACU), Scouler's willow (*Salix scouleriana*, FAC), red alder (*Alnus rubra*, FAC), spirea (*Spiraea douglasii*, FACW), tall Oregon grape (*Mahonia aquifolium*, FACU), Scotch broom, Himalayan blackberry, field horsetail (*Equisetum arvense*, FAC), and similar perennial grasses mentioned above. Reed canarygrass dominates the central wetland area adjacent to Rock Creek. A mowed lawn portion of tax lot 150, due east of Century Drive, contains grasses and weedy forbs with occasional emerging Himalayan blackberry.

Natural Resources Conservation Services (NRCS) mapped soils within the study area include Aloha silt loam, Quatama loam, Huberly silt loam (hydric), Briedwell stony silt loam, Wapato silty clay loam (hydric), urban land, and Cove clay (hydric). Units listed as hydric soils are historically associated with wetland.

B. Site Alterations

In the southwest portion of Tax Lot 150, the site contains four existing industrial buildings with adjacent parking lots, truck turnarounds, and loading docks. There is a railroad right-of-way (ROW) adjacent to a ditch bordering the southern study area; the ditch conveys stormwater east toward Rock Creek.

An examination of historical aerial photos shows that earthwork and vegetation clearing occurred on site between 2003 and 2005 (www.historicaerials.com). Existing enhancement plantings (on the east and west side of Wetland A) were constructed between 2007 and 2008 while the existing industrial buildings and associated infrastructure followed between 2010 and 2016. Soils appear disturbed with some areas of mixed matrices and/or high-chroma soils.

Recently, an active trunk sewer construction project along Rock Creek, directly south of Tualatin-Sherwood Road. The project was permitted through the State under 22971RF and impacted a small portion of Rock Creek. Previous delineations included WD2019-0535 and WD2020-0201. These delineation areas are not part of the proposed study area, but abut the boundary.

C. Precipitation Data and Analysis

PHS conducted the wetland delineation and collected data on August 25, September 22, and October 6, 2021. Table 1 compares the average monthly precipitation at the nearest WETS station with comprehensive data (Oregon City, OR) to the observed monthly precipitation at the same station. The same station was selected for monthly observations in order to achieve a reasonable and uniform comparison.

As shown in Table 1, observed precipitation was drier for the first two field visits, and normal for the October field visit. Total observed precipitation for the water year can be found in Table 2 below. No precipitation was recorded on August 25; 0.05 inches fell during the two weeks prior. Precipitation recorded on September 22 was 0.07 inches; 1.81 inches fell during the two weeks prior. No precipitation was recorded on October 6; 3.47 inches fell during the two weeks prior.

Table 1: August 25, 2021, values are underlined, September 22 values are in **bold, October 6 values are in *italics*: Comparison of average and observed monthly precipitation prior to the delineation field work using DAREM**

Month	Average Precipitation ¹	30% Chance Will Have		Measured Rainfall ²	Condition Value ³ (1=dry, 2=normal, 3=wet)	Month Weight ⁴	Condition Value x Month Weight	Sum Total ⁵
		Less Than Average ¹	More Than Average ¹					
Year 2021								
May	2.70	1.78	3.24	2.29	2	<u>1</u>	<u>2</u>	9(drier) 7(drier) 12(normal)
June	1.81	1.13	2.18	1.38	2	<u>2</u> , 1	<u>4</u> , 2	
July	0.83	0.33	0.98	0.01	1	<u>3</u> , 2 , <i>1</i>	<u>3</u> , 2 , <i>1</i>	
August	1.03	0.29	1.12	0.05	1	3 , 2	3 , 2	
September	1.85	0.94	2.20	2.96	3	<i>3</i>	<i>9</i>	

¹ NRCS WETS Table for the Oregon City, Oregon station, Source: <http://agacis.rcc-acis.org/?fips=41005>

² Measured rainfall is the precipitation recorded at Oregon City, Oregon station, Source: <http://agacis.rcc-acis.org/?fips=41005>

³ Condition Value: compared to nearest WETS normal range

⁴ Month Weight: most recent month = 3, 2nd most recent month = 2, third most recent month = 1

⁵ Sum Total: sum of eighth column: drier (sum 6-9), normal (sum 10-14), wetter (sum 15-18)

Table 2: Water Year Levels Observed Compared to Average Over the Past 20 Years

Water Year	Observed Precipitation (in.)	Average Precipitation (in.)	Percent of Normal
October 2020-August 2021	42.22	39.42	107
October 2020-September 2021	45.18	41.22	110
October 2021	7.26	4.32	168

Because precipitation averages were drier during the majority of data collection dates in August and September, but above average in October, hydrological conditions were not considered typical for the time of year despite water year levels. Extra care was taken to evaluate hydrology indicators as outlined in the methods section of this report.

D. Methods

As stated above, PHS conducted a wetland delineation and collected data on August 25, September 22, and October 6, 2021. PHS delineated the limits of the wetlands in the study area based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation in accordance with the routine onsite determination method, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y 87 1* (“The 1987 Manual”) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*.

The top of bank was delineated to obtain the ordinary high water (OHW) of Rock Creek due to its length, which is not intended for future impact. As such, the top of bank of Rock Creek was identified using LiDAR, surveyed topographic contours, and by incorporating periodic GPS points collected at the top of bank. In accordance with methods outlined in *Determining the Ordinary High Water Mark on Streams in Washington State*, the top of bank along this reach of Rock Creek has a channel pattern of straight to slightly sinuous, with the OHW below the vertical top of bank based on high water stage, soil, and changes in vegetation.

Despite the presence of disturbed/managed vegetation upslope (including invasive grasses that spread easily), there were generally higher percentages of FACW vegetation within the wetlands, like reed canarygrass. Due to the presence of reed canarygrass in both wetlands and upland fringes, the boundary was delineated based mainly on the presence of hydrology and hydric soils. Several upland plots meet hydrophytic vegetation criteria due to the presence of minor reed canarygrass combined with predominantly facultative status species.

Wetland hydrology indicators varied between those present in the lower wetland boundary compared to those upslope. In upslope, better-drained environments, wetland indicators typically present included secondary indicators like geomorphic position and/or FAC-Neutral test. Hydrology indicators present in lower elevations, like the floodplain surrounding Rock Creek, included both secondary and primary indicators. Some upland areas adjacent to wetland boundaries also displayed redoximorphic features at low percentages, but typically within high-chroma matrices and with no accompanied hydrology indicators.

Soils on site followed a similar theme, where stronger concentrations of redox features were present in the lower elevations of Wetland A. Upslope, Wetland B is isolated to a shallow depression, likely avoided during ground clearing activities from 2003-2005 described above. The geomorphic position of the area accumulates overland flow during precipitation events and retains moisture long enough that hydric soils have developed with hydrophytic vegetation. The break in slope along the shallow grade and along the floodplain aided in the delineation boundary, which is abrupt. The east boundary of Wetland A has a more gradual slope in the southeast corner. Much of these areas were diffuse, and so more soil excavations were required to delineate the boundary.

E. Description of all Wetlands and Other Waters

PHS identified the jurisdictional limits of two wetlands and one other water within the study area. Descriptions of the delineated wetlands are provided below.

Wetland A

Wetland A (6.98 acres/ 304,051 square feet) is a palustrine forested-broad leaved deciduous, and emergent-persistent, seasonally flooded/saturated (PFO/EM1E) wetland with a hydrogeomorphic (HGM) classification of Riverine. The wetland receives hydrology from seasonal overflow from Rock Creek, overland flow, direct precipitation, and stormwater from adjacent developments. Dominant vegetation consists of Pacific willow, Oregon ash, black cottonwood, Himalayan blackberry, tall Oregon grape, reed canarygrass, colonial bentgrass, lesser hawkbit, field meadow foxtail, and velvet grass. The majority of central wetland is PEM, with PFO along the wetland/upland boundary. Hydric soil indicators present in the wetland include Redox Dark Surface (F6). Hydrology indicators include sediment deposits (B2), Oxidized Rhizospheres along Living Roots (C3), Drainage Patterns (B10), Geomorphic Position (D2), Fac-Neutral Test (D5), Raised Ant Mounds (D6), and Frost-Heave Hummocks (D7). Sample points 2, 5 and 7 characterize Wetland A, with sample points 1, 3, 4 and 6 characterizing the adjacent upland.

Vegetation in the upland consists of black cottonwood, Oregon ash, tall Oregon grape, Scotch broom, Himalayan blackberry, trailing blackberry, reed canarygrass, orchard grass, field horsetail, Canada thistle, brome, sweet vernal grass, and oxeye daisy (*Leucanthemum vulgare*, FACU). No hydric soils or hydrology were present in the upland. Wetland A continues north and south beyond the study area.

Wetland Ditch

A Wetland Ditch (0.56 acres/ 24,194 square feet) exists in the southern study area and conveys seasonal runoff into Wetland A. The Wetland Ditch is a palustrine scrub-shrub, broad leaved deciduous, seasonally flooded/saturated, excavated, partly drained/ditched (PSS1Edx) wetland with a HGM classification of Slope. The wetland receives hydrology from direct precipitation and overland flow, particularly stormwater accumulation. Dominant vegetation consists of Oregon ash, Himalayan blackberry, velvet grass, colonial bentgrass, spreading rush (*Juncus patens*, FACW), and Dewey's sedge (*Carex deweyana*, FAC). Hydric soil indicators present in the wetland include Redox Dark Surface (F6). Hydrology indicators include Oxidized Rhizospheres along Living Roots (C3), Drainage Patterns (B10), Geomorphic Position (D2), and Fac-Neutral Test (D5). Sample point 9 characterizes the Wetland Ditch, with sample points 8 and 10 characterizing the adjacent upland.

Vegetation in the upland consists of Oregon white oak, Douglas fir, Western hazelnut, Scouler's willow, spirea, Scotch broom, tall Oregon grape, red alder, Himalayan blackberry, Douglas hawthorn, clustered rose, reed canarygrass, velvet grass, and bed straw. No hydric soils were present in the upland; however, Fac-Neutral Test and Geomorphic Position were present at sample point 3, which was excavated to 20" to ensure no dry-season high water table was present. Wetland Ditch does not extend beyond the study area but does connect to Wetland A which is lower in elevation within the floodplain of Rock Creek.

Wetland B

Wetland B (0.24 acres/ 10,623 square feet) is a palustrine emergent-persistent, seasonally saturated, excavated (PEM1Bx) wetland with a hydrogeomorphic (HGM) classification of Depressional. The wetland receives hydrology from direct precipitation that accumulates in a shallow depression. Dominant vegetation consists of reed canarygrass. Hydric soil indicators present in the wetland include Redox Dark Surface (F6). Hydrology indicators include Oxidized Rhizospheres along Living Roots (C3), Geomorphic Position (D2), and Fac-Neutral Test (D5). Sample points 17 and 19 characterize Wetland B, with sample points 16 and 18 characterizing the adjacent upland.

Vegetation in the upland consists of black cottonwood, Scotch broom, Himalayan blackberry, teasel, sweet vernal grass, reed canarygrass, and colonial bentgrass. No hydric soils were present in the upland; however, Fac-Neutral Test was present at sample point 16. Wetland B is isolated and does not extend beyond the study area.

Rock Creek

Rock Creek (0.19 acres/ 8,147 square feet) is a perennial tributary of the Tualatin River residing within Wetland A. The creek flows north and continues beyond the study area. The Creek is a Riverine, lower perennial, unconsolidated bottom (R2UB) other waters with a HGM classification of Riverine. Dominant vegetation along the banks of the creek consists of reed canarygrass, but trees and shrubs populate the bank near SW Tualatin-Sherwood Road. The channel width varies between approximately 20-25 feet with steep, almost vertical banks aerially aligned with OHW.

F. Deviation from Local Wetland Inventory or National Wetland Inventory

The Local Wetlands Inventory (LWI) map of Sherwood (1998) displays wetlands R-3, R-5, and R-6 within the study area. Wetland R-5 and R-3 are roughly in alignment with Wetland A and Rock Creek as mapped by PHS. Wetland R-6 on the west side of the study area is not present in the size or quantity shown on the inventory (at the location of Wetland B). The difference in findings between the LWI and PHS' mapping may, in part, be a result of past ground-work activities circa 2003/2004, which is compared to field work for the LWI dated from 1992. The data from 1992 meets wetland criteria based on hydric soils of 10YR 3/1 to 7.5YR 3.2 with no recorded percentage of mottles, which may not meet the current definition for hydric soil criteria since dark surface soils are no longer sufficient. Additionally, only saturation was present at the time the data was recorded in 1992 and no high water table. If conditions on site were unchanged since 1992, it is unlikely that the site would meet wetland criteria today even without past groundwork disturbances during the mid-2000s. Finally, the surrounding development upslope may be affecting the amount of hydrology currently reaching the site, which has likely reduced the amount of overland sheet flow in the study area.

G. Mapping Method

PHS flagged the limits of the wetlands within the study area with blue flagging and the sample points with green flagging. Northwest Surveying, Inc. then surveyed the delineated boundaries and sample points with an accuracy of sub-centimeter. Metro LiDAR (2014) contours have an accuracy of +/- 3 feet.

H. Additional Information

The following delineations were conducted on site: WD2000-0436, WD2019-0535, and WD2020-0201. Past mitigation is also present on site under RGL 1758.

I. Results and Conclusions

PHS delineated the following wetlands and other waters within the study area. Table 3 provides a summary of wetlands by Cowardin and HGM classification, as well as acreages within the study area.

Table 3: Summary of Wetlands and Water Resources within the Study Area

Feature	Area acre / square feet	Cowardin Class	HGM Class
Wetland A	6.98 / 304,051	PFO/EM1E	Riverine
Wetland Ditch	0.56 / 24,194	PSS1Edx	Slope
Wetland B	0.24 / 10,623	PEM1Bx	Depressional
Total Wetland	7.78 / 338,868		
Rock Creek	0.19 / 8,147	R2UB	Riverine
Total Waters	0.19 / 8,147		

J. Required Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

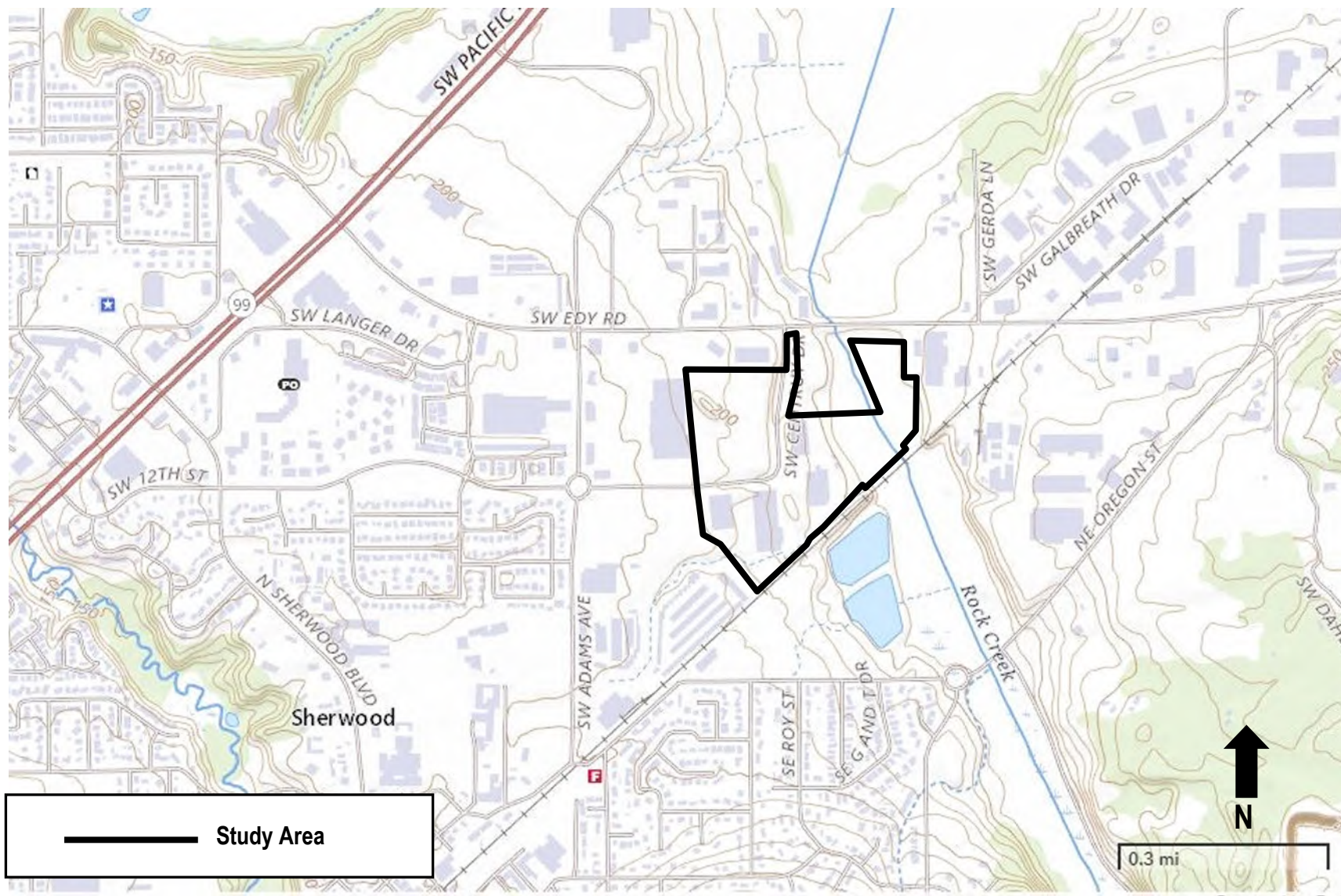
III. REFERENCES

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- U.S. Geological Survey, 2022. *Sherwood, Oregon Co. 7.5-minute Quadrangle Map*

Appendix A

Figures





Project #7296
10/27/2021

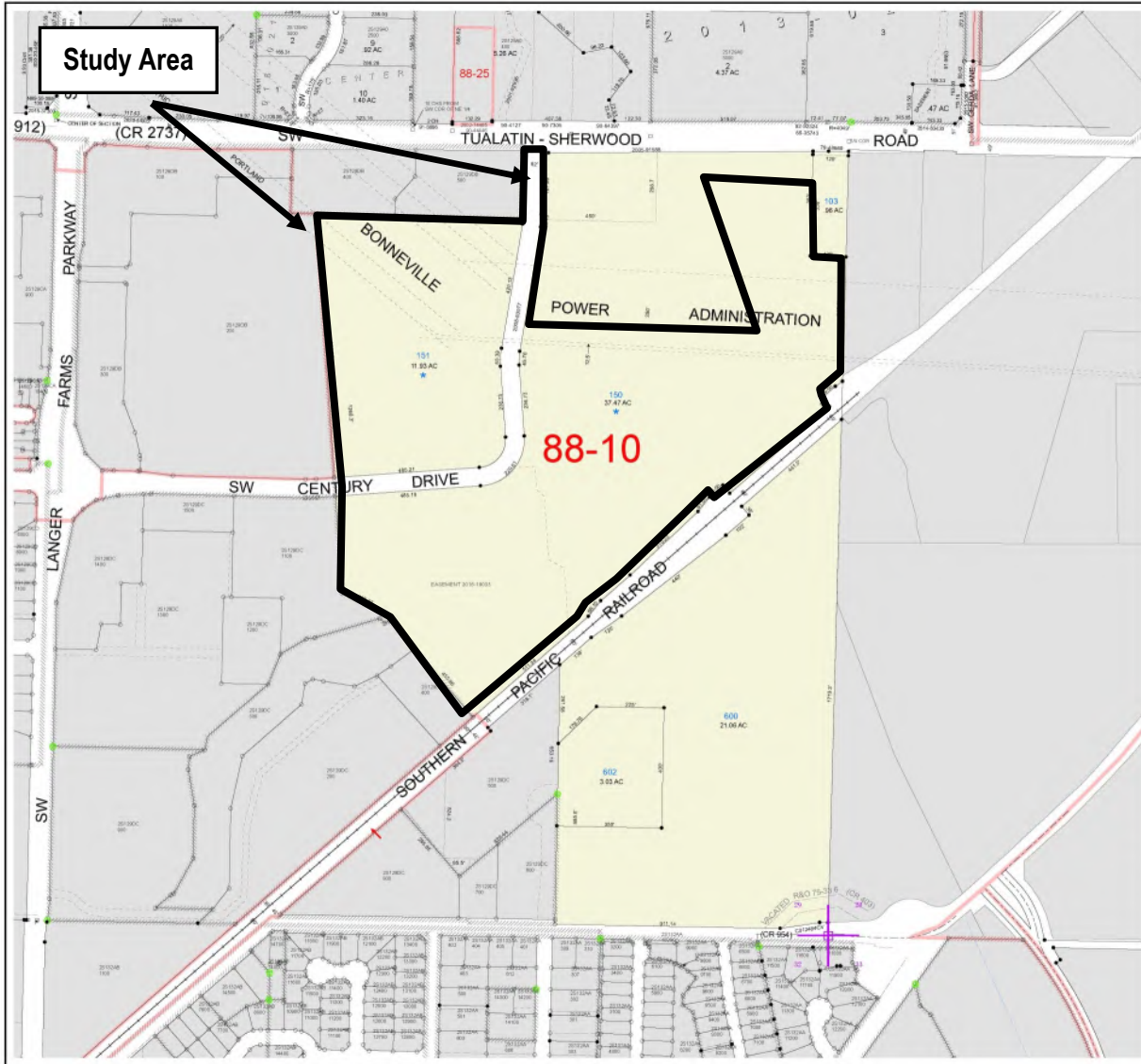


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Wilsonville, OR 97070

General Location and Topography
 Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
 United States Geological Survey (USGS) Sherwood, Oregon 7.5 quadrangle, 2022
 (viewer.nationalmap.gov/basic)

FIGURE

1



2S129D

WASHINGTON COUNTY OREGON
SE 1/4 SECTION 29 T2S R1W W.M.
SCALE 1"= 200'

39	31	32	33	34	35	36	37
6	5	4	3	2	1		
7	8	9	10	11	12		
13	14	15	16	17	18		
19	20	21	22	23	24		
25	26	27	28	29	30		
31	32	33	34	35	36	37	38

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT
www.co.washington.or.us

BB	BA	AB	AA
B		A	
BC	BD	AC	AD
CB	CA	DB	DA
C		D	
CC	CD	DC	DD

Cancelled Taxlots For: 2S129D
401,402,500-A1,104,200,400,403,501,101,102,500,700,800,900,1000,
1100,120,901.

Feet
0 100 200 400 600

PLOT DATE: 2/18/2021
Revision:
**FOR ASSESSMENT PURPOSES
ONLY - DO NOT RELY ON
FOR OTHER USE**

Map areas delineated by other group plotting or a cross-hatched pattern
are for reference only and may not indicate the final correct property boundaries.
Please consult the appropriate map for the most current information.

SHERWOOD
2S129D



Project #7296
10/27/2021



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







Tax Lot Map
Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
The Oregon Map (ormap.net)

FIGURE
2

City of Sherwood, Oregon

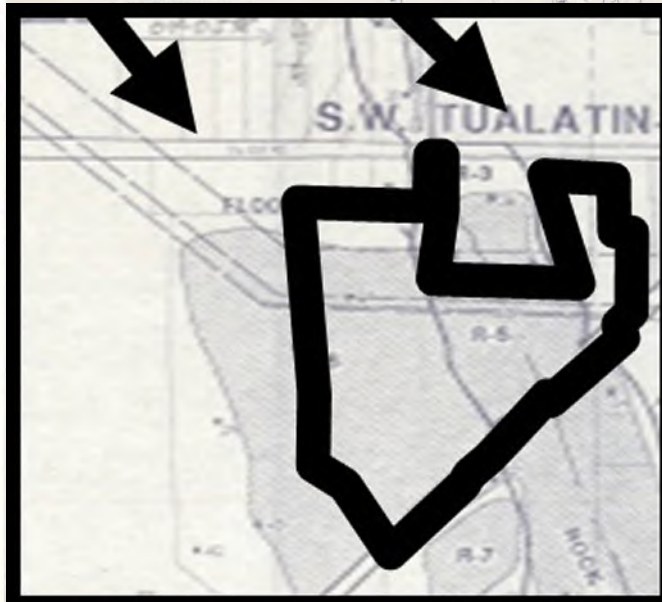
WETLANDS INVENTORY

LEGEND

-  WETLANDS
-  WATERSHED BOUNDARY
-  SECTION LINE
-  SECTION CORNER
-  URBAN GROWTH BOUNDARY
-  WETLAND NUMBER
-  TEST PIT NUMBER
-  100 YEAR FLOODPLAIN LINE

- NOTES
1. THESE DATA WERE OBTAINED FROM THE FIELD SURVEY AND THE BEST AVAILABLE INFORMATION FOR THE DATE OF THE SURVEY.
 2. FIELD SURVEY DATA WERE OBTAINED BY VISUAL INSPECTION AND PHOTOGRAPHY AT THE TIME OF THE SURVEY.
 3. WETLANDS WERE IDENTIFIED BY VISUAL INSPECTION AND PHOTOGRAPHY AND WERE CLASSIFIED AS SHOWN ON THIS MAP.
 4. THE WETLANDS WERE IDENTIFIED BY VISUAL INSPECTION AND PHOTOGRAPHY AND WERE CLASSIFIED AS SHOWN ON THIS MAP.
 5. THE WETLANDS WERE IDENTIFIED BY VISUAL INSPECTION AND PHOTOGRAPHY AND WERE CLASSIFIED AS SHOWN ON THIS MAP.
 6. THESE DATA WERE OBTAINED FROM THE FIELD SURVEY AND THE BEST AVAILABLE INFORMATION FOR THE DATE OF THE SURVEY.

Study Area



Enlargement



Project #7296
10/27/2021

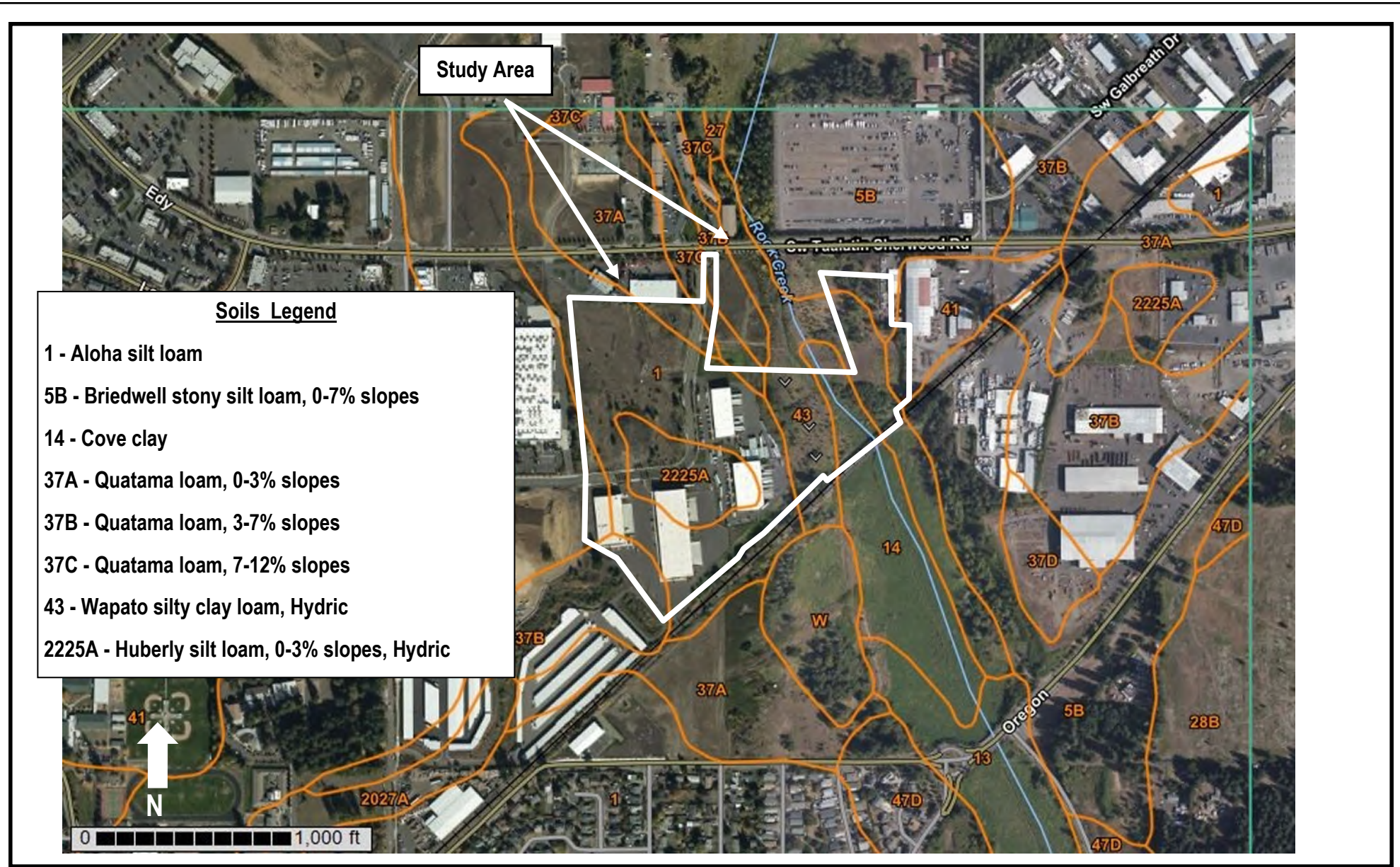


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Local Wetlands Inventory
Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
David Evans & Associates, Inc., 1998

FIGURE

3



Project #7296
10/27/2021



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Wilsonville, OR 97070

Soils
Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
Natural Resources Conservation Services, Web Soil Survey, 2022
(websoilsurvey.sc.egov.usda.gov)

FIGURE

4



Project #7296
10/27/2021

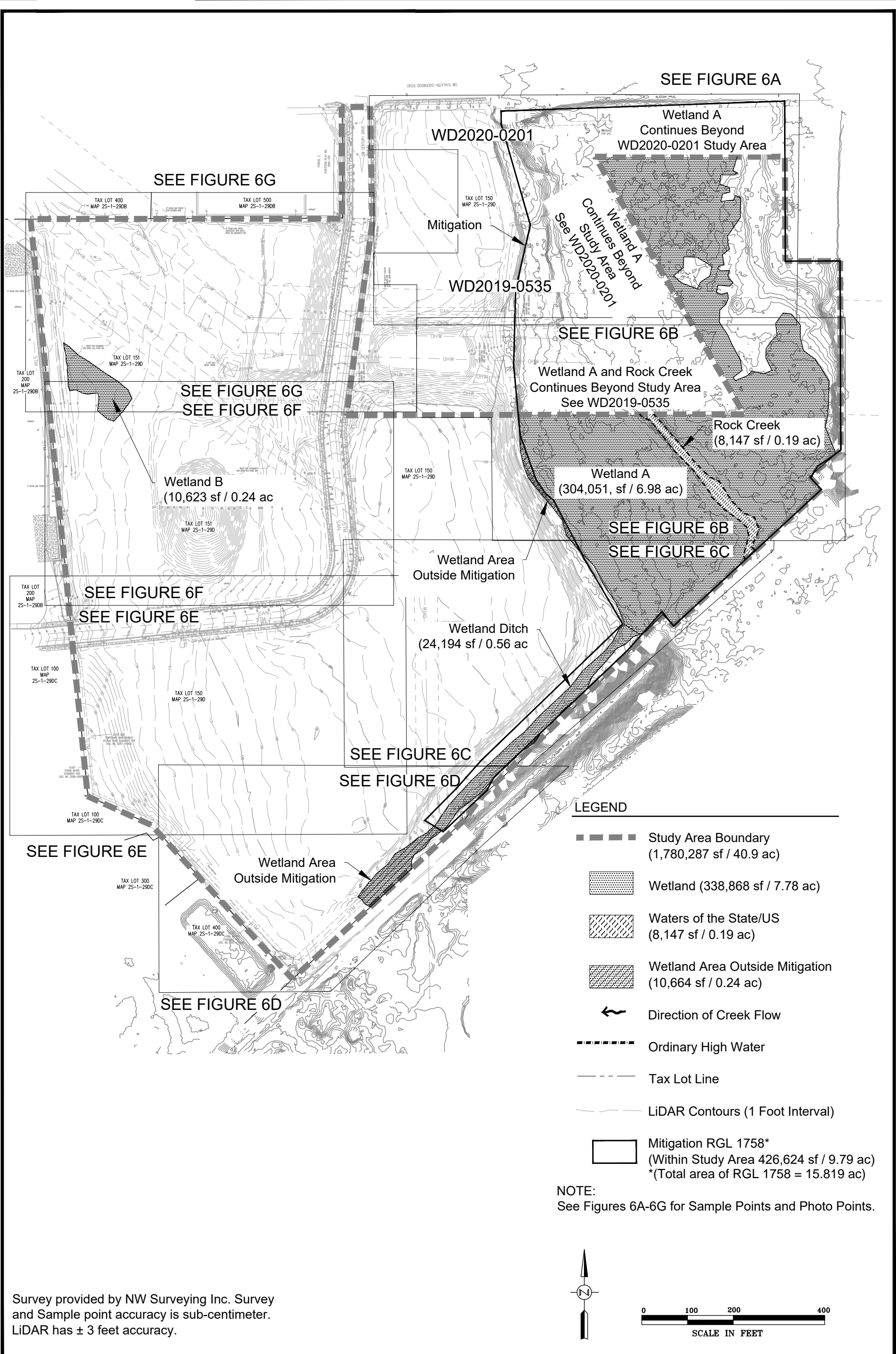


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Aerial Photo
Sherwood Industrial Park Phase 3 Development Site - Sherwood, Oregon
GoogleEarth, 2020

FIGURE

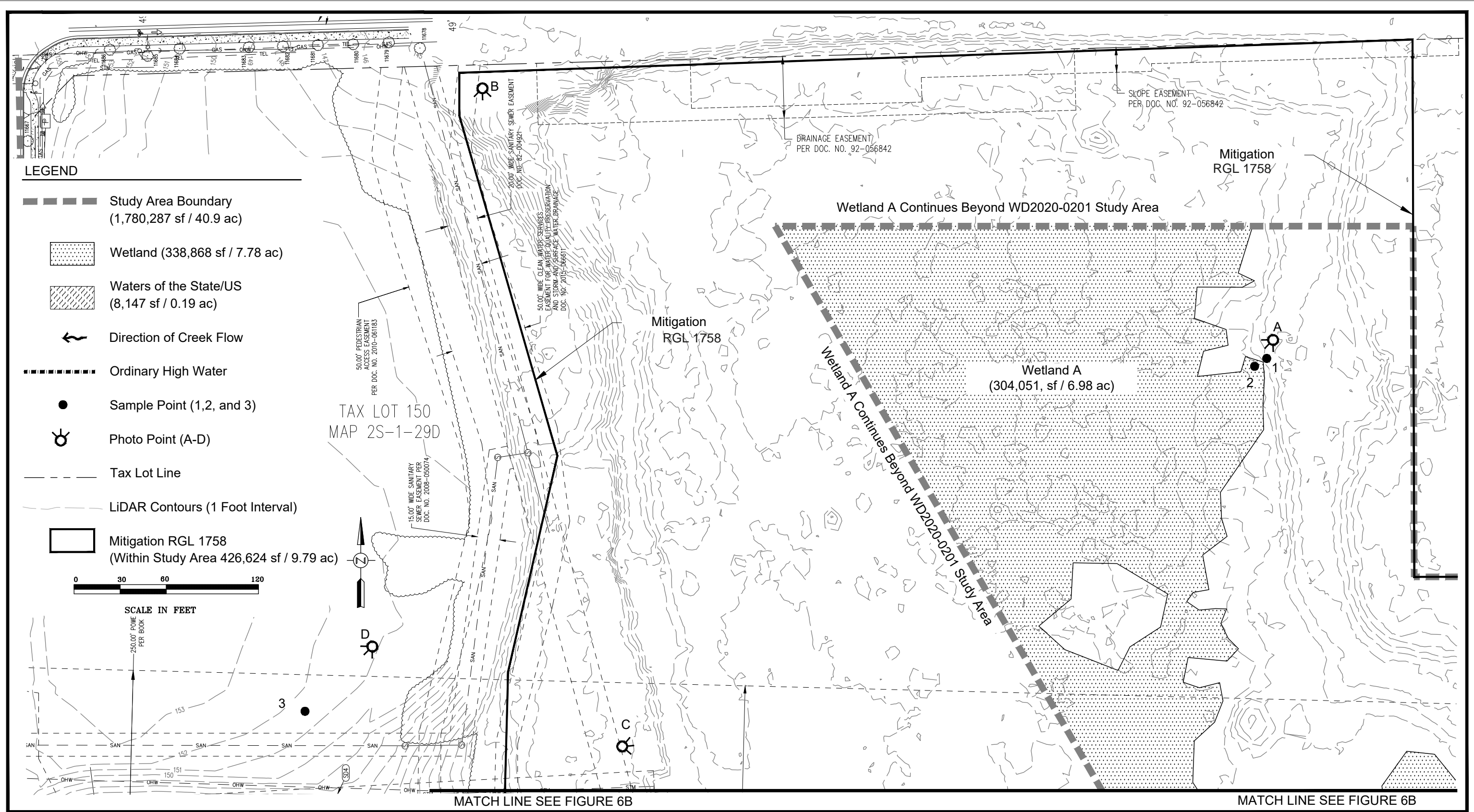
5



Wetland Delineation Overview and Sheet Index
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6

10-11-2022

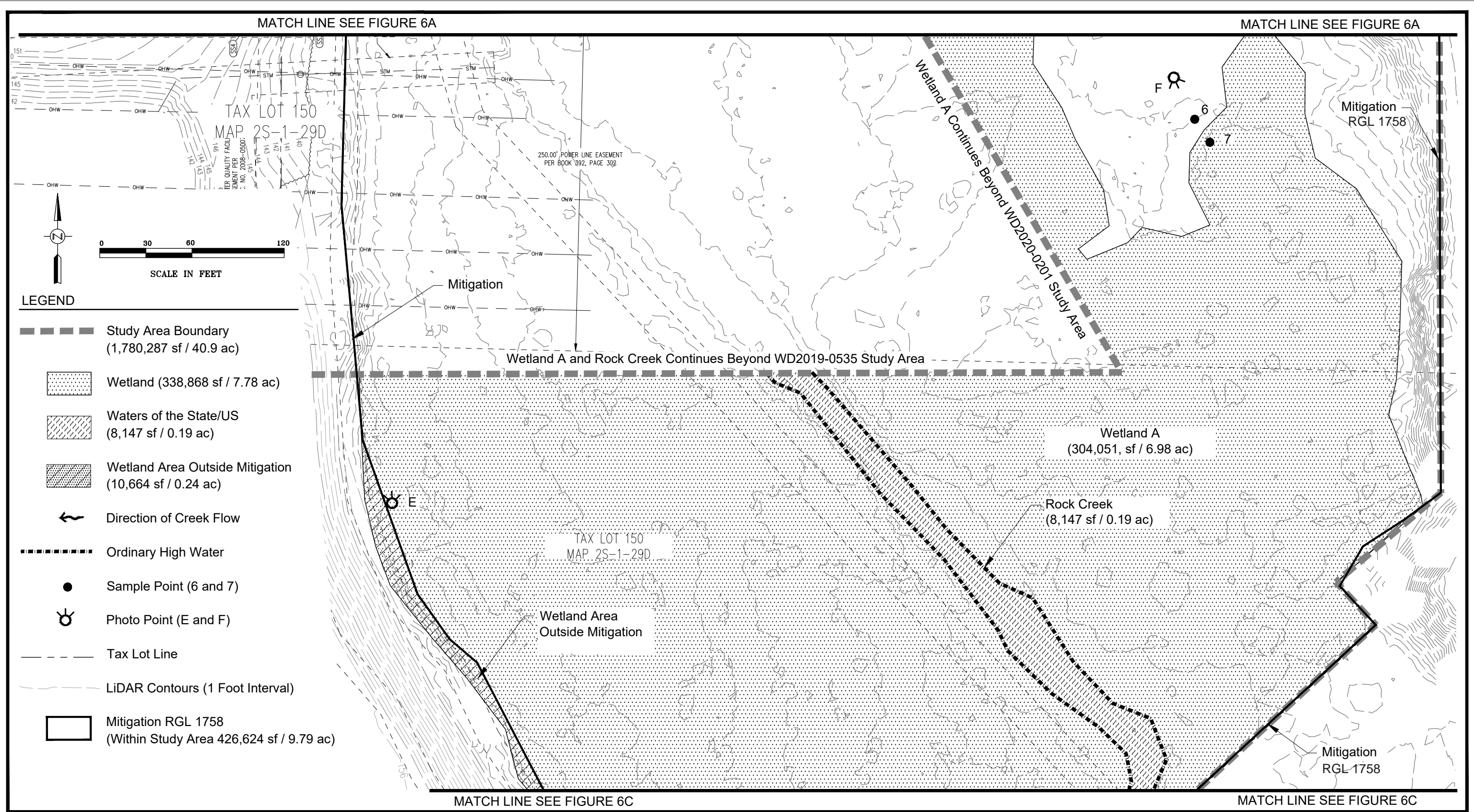


Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6A

10-11-2022

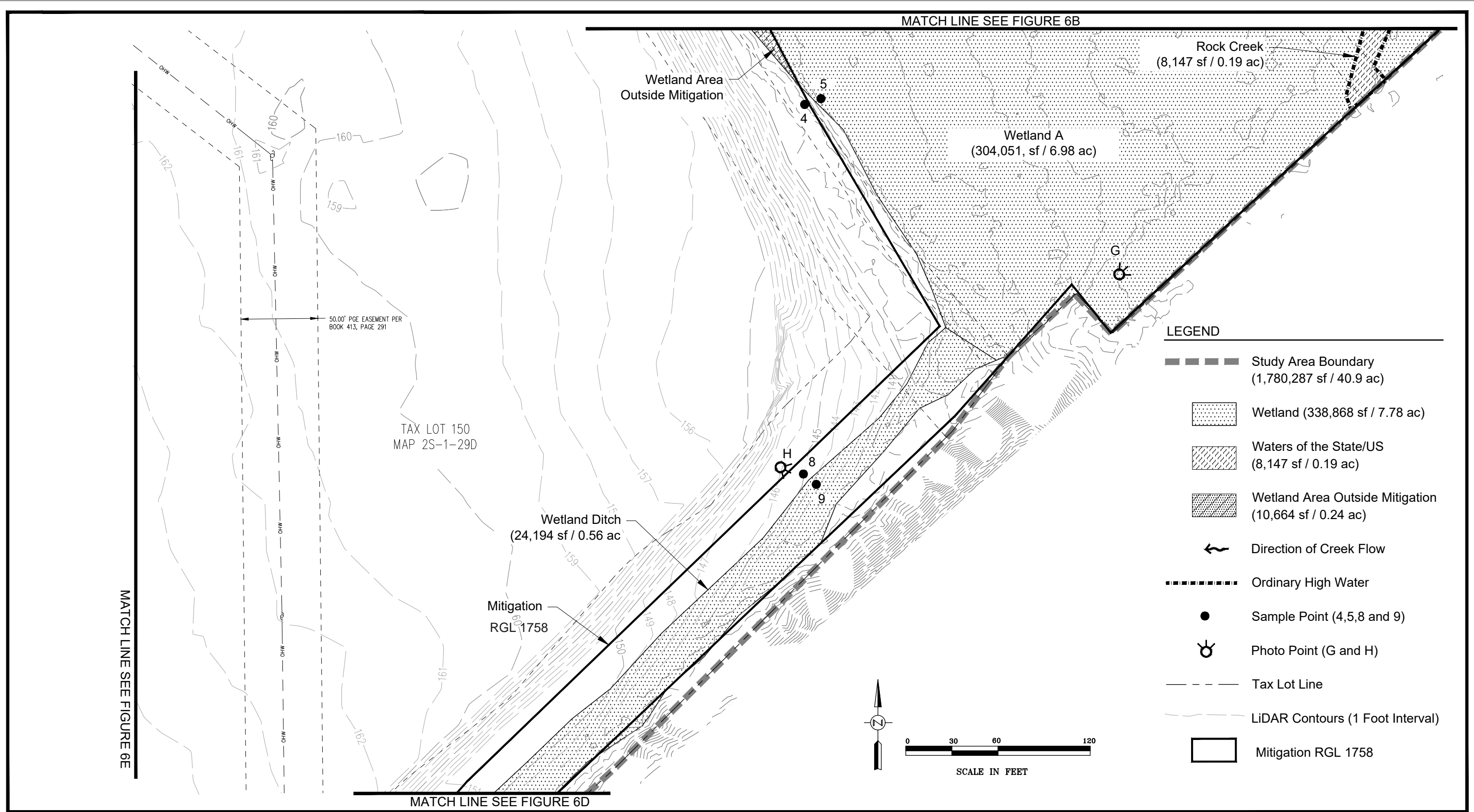


Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6B

10-11-2022



LEGEND

	Study Area Boundary (1,780,287 sf / 40.9 ac)
	Wetland (338,868 sf / 7.78 ac)
	Waters of the State/US (8,147 sf / 0.19 ac)
	Wetland Area Outside Mitigation (10,664 sf / 0.24 ac)
	Direction of Creek Flow
	Ordinary High Water
	Sample Point (4,5,8 and 9)
	Photo Point (G and H)
	Tax Lot Line
	LiDAR Contours (1 Foot Interval)
	Mitigation RGL 1758



Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

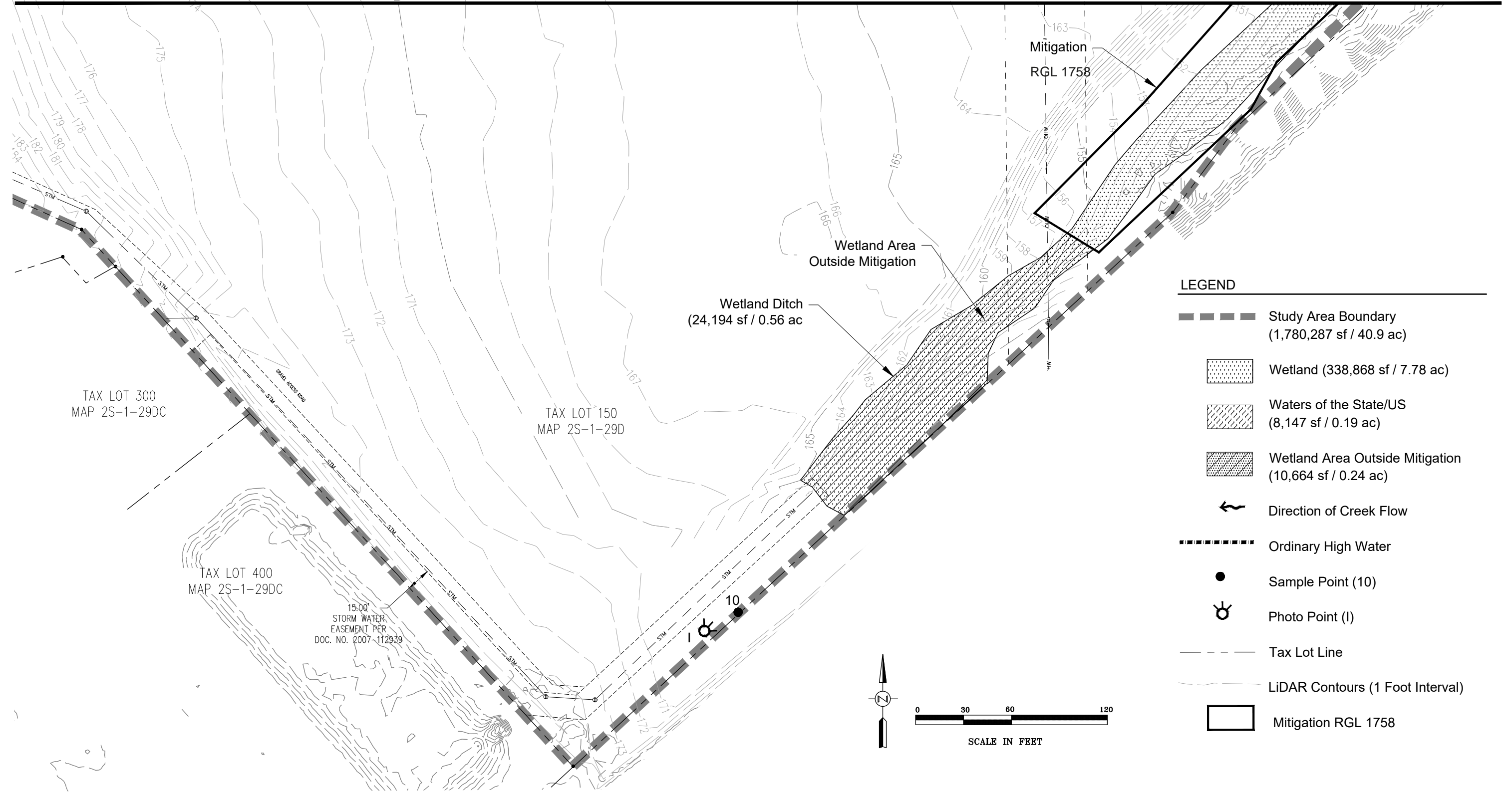
Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE 6C

10-11-2022

MATCH LINE SEE FIGURE 6E

MATCH LINE SEE FIGURE 6C



Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6D

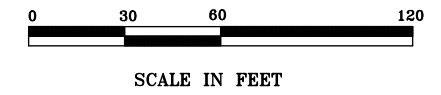
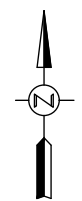
10-11-2022

MATCH LINE SEE FIGURE 2F

MATCH LINE SEE FIGURE 2F



- LEGEND**
- Study Area Boundary (1,780,287 sf / 40.9 ac)
 - Wetland (338,868 sf / 7.78 ac)
 - Waters of the State/US (8,147 sf / 0.19 ac)
 - Direction of Creek Flow
 - Ordinary High Water
 - Sample point
 - Photo Point
 - Tax Lot Line
 - LiDAR Contours (1 Foot Interval)



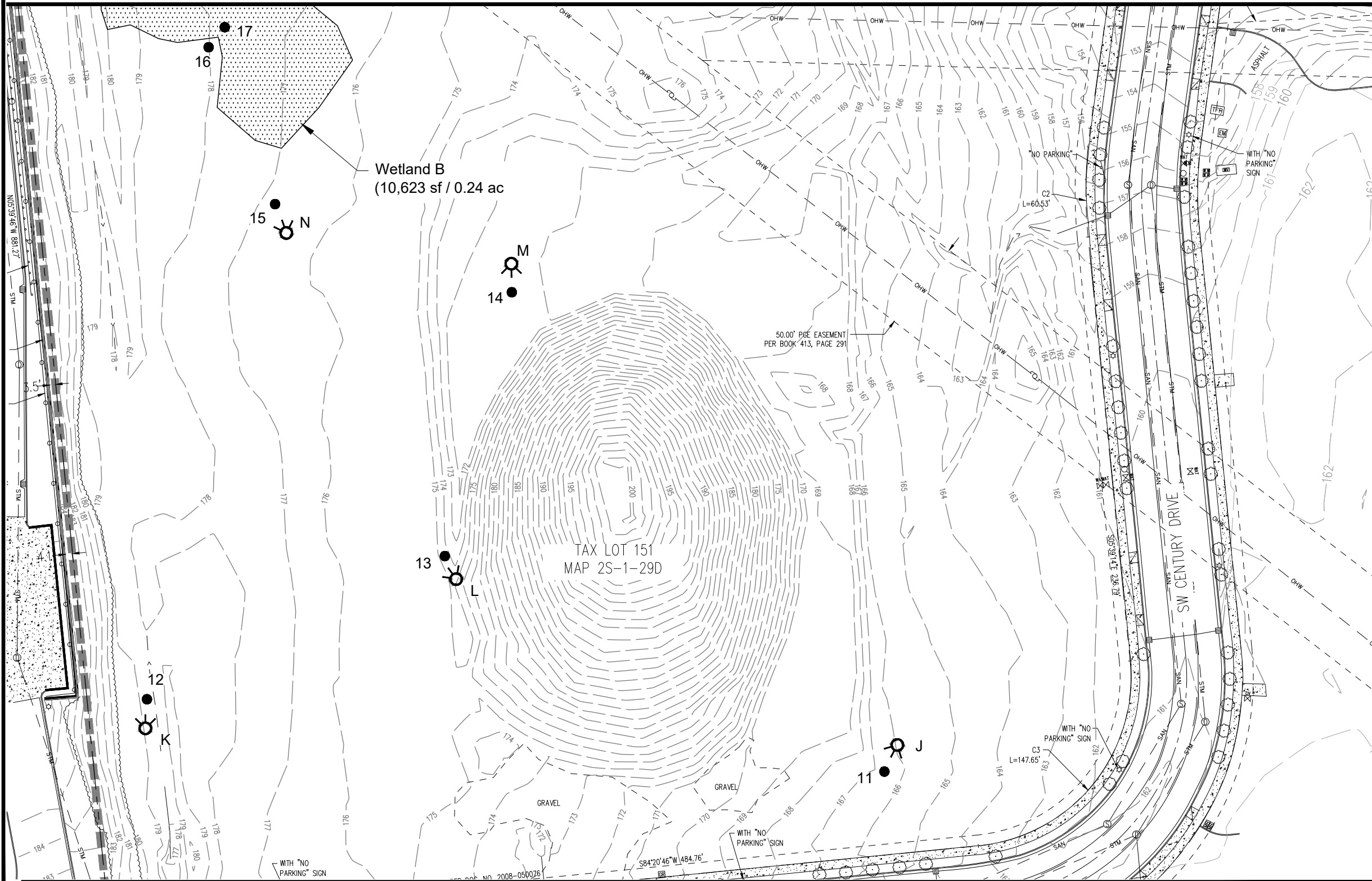
Survey provided by NW Surveying Inc.
 Survey and Sample point accuracy is sub-centimeter.
 LiDAR has ± 3 feet accuracy.

Wetland Delineation
 Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE 6E

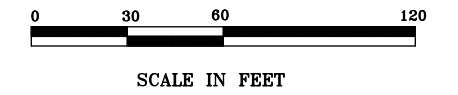
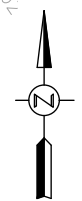
7-20-2022

MATCH LINE SEE FIGURE 6G



LEGEND

- Study Area Boundary (1,780,287 sf / 40.9 ac)
- Wetland (338,868 sf / 7.78 ac)
- Waters of the State/US (8,147 sf / 0.19 ac)
- Direction of Creek Flow
- Ordinary High Water
- Sample point (11-17)
- Photo Point (J-N)
- Tax Lot Line
- LiDAR Contours (1 Foot Interval)



MATCH LINE SEE FIGURE 6E

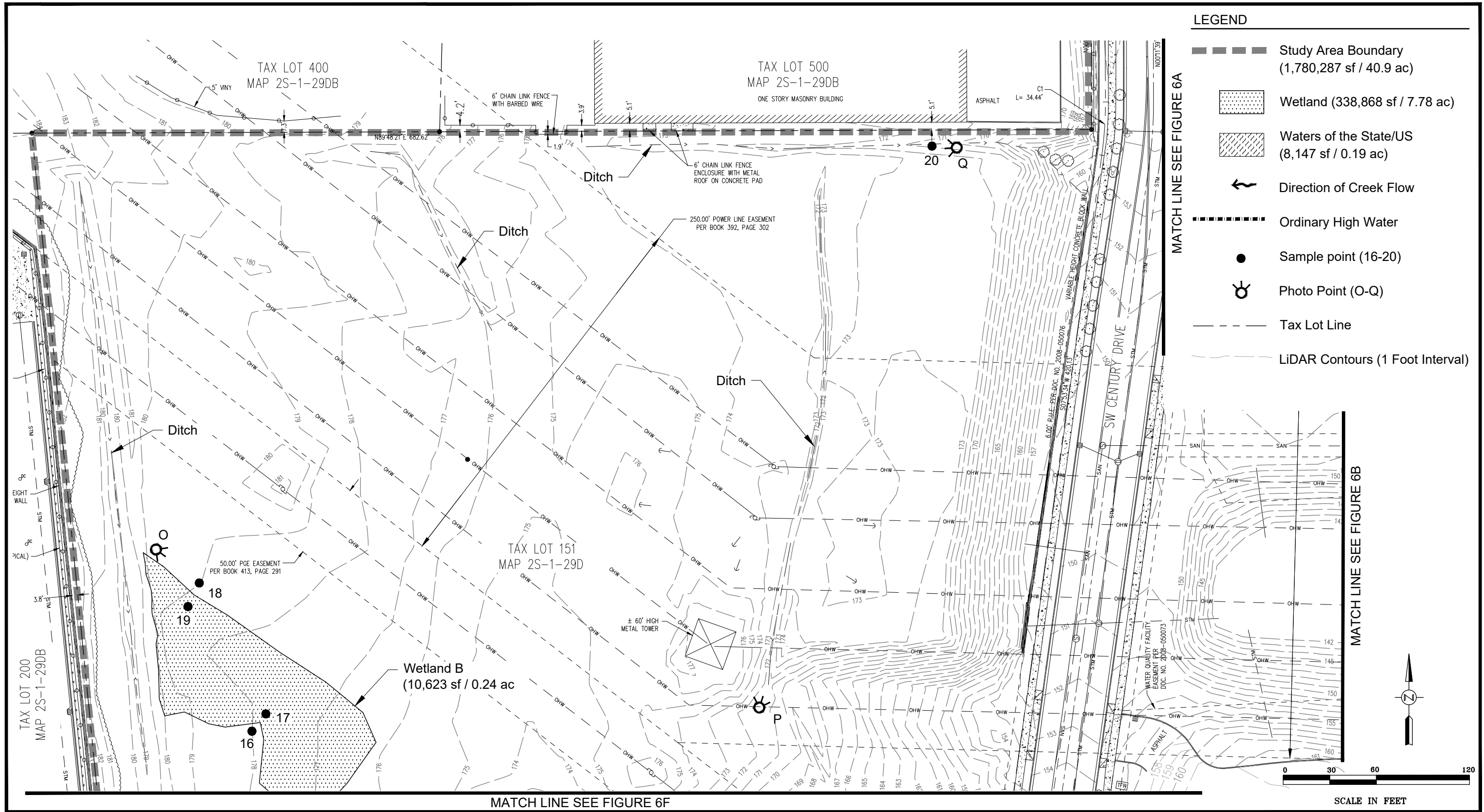


Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is
sub-centimeter.
LiDAR has ± 3 feet accuracy.

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE
6F

7-20-2022



Survey provided by NW Surveying Inc.
Survey and Sample point accuracy is sub-centimeter.
LiDAR has ± 3 feet accuracy.

Wetland Delineation
Sherwood Industrial Park Phase III Development Site - Sherwood, Oregon

FIGURE 6G

7-20-2022

Appendix B

Wetland Delineation Data Sheets



WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/26/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 1
 Investigator(s): CM/CR Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 5
 Subregion (LRR): LRR A Lat: 45.3672 Long: -122.8269 Datum: WGS84
 Soil Map Unit Name: Briedwell stony silt loam NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>3</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>6</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>50%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1	<u>5</u>		<u>FAC</u>	Total % Cover of	Multiply by:
2	<u>20</u>	<u>X</u>	<u>(UPL)</u>	OBL Species	x 1 = <u>0</u>
3	<u>10</u>	<u>X</u>	<u>FAC</u>	FACW species	x 2 = <u>0</u>
4	<u>5</u>		<u>FACU</u>	FAC Species	x 3 = <u>0</u>
5	<u>5</u>		<u>FAC</u>	FACU Species	x 4 = <u>0</u>
	<u>45</u>	= Total Cover		UPL Species	x 5 = <u>0</u>
Herb Stratum (plot size: <u>10</u>)				Column Totals	<u>0</u> (A) <u>0</u> (B)
1	<u>25</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2	<u>20</u>	<u>X</u>	<u>(FAC)</u>	Hydrophytic Vegetation Indicators:	
3	<u>15</u>		<u>FACU</u>	1- Rapid Test for Hydrophytic Vegetation	
4	<u>25</u>	<u>X</u>	<u>FACU</u>	2- Dominance Test is >50%	
5	<u>5</u>		<u>FACU</u>	3-Prevalence Index is ≤ 3.0 ¹	
6	<u>10</u>		<u>FACU</u>	4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7				5- Wetland Non-Vascular Plants ¹	
8				Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>100</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present?	
1	<u>10</u>	<u>X</u>	<u>FACU</u>	Yes <u> </u>	No <u>X</u>
2					
	<u>10</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): >13

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): >13

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/26/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 2
 Investigator(s): CM/CR Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3671 Long: -122.8269 Datum: WGS84
 Soil Map Unit Name: Briedwell stony silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>50</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>3</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Species Across All Strata: <u>3</u> (B)	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species	
	<u>50</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1 <u>Rubus armeniacus</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Total % Cover of <u> </u> Multiply by:	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL Species <u> </u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
	<u>10</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Phalaris arundinacea</u>	<u>80</u>	<u>X</u>	<u>FACW</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u>Lotus corniculatus</u>	<u>5</u>	<u> </u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	1- Rapid Test for Hydrophytic Vegetation	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>X</u> 2- Dominance Test is >50%	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	3-Prevalence Index is ≤ 3.0 ¹	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	4-Morphological Adaptations ¹ (provide supporting	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	data in Remarks or on a separate sheet)	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	5- Wetland Non-Vascular Plants ¹	
	<u>85</u>	= Total Cover		Problematic Hydrophytic Vegetation ¹ (Explain)	
Woody Vine Stratum (plot size: <u> </u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	disturbed or problematic.	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic	
	<u>0</u>	= Total Cover		Vegetation Present? Yes <u>X</u> No <u> </u>	
% Bare Ground in Herb Stratum <u>15</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR 2.5/2	90	7.5YR 5/8	5	C	PL	Silt Loam	Fine
0-4			7.5YR 5/8	5	C	M	Silt Loam	Fine
4-12	10YR 4/3	90	5YR 4/6	10	C	M	Silty Clay Loam	Medium

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): >12
 Saturation Present? Yes No Depth (inches): >12
 (includes capillary fringe)

Wetland Hydrology Present?

Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 9/22/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 3
 Investigator(s): JT/CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 10
 Subregion (LRR): LRR A Lat: 45.3666 Long: -122.8292 Datum: WGS84
 Soil Map Unit Name: Quatama loam NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation X Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>2</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>2</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1	<u>10</u>	<u>X</u>	<u>FAC</u>	Total % Cover of	
2				Multiply by:	
3				OBL Species	x 1 = <u>0</u>
4				FACW species	x 2 = <u>0</u>
5				FAC Species	x 3 = <u>0</u>
	<u>10</u>	= Total Cover		FACU Species	x 4 = <u>0</u>
				UPL Species	x 5 = <u>0</u>
				Column Totals	<u>0</u> (A) <u>0</u> (B)
Herb Stratum (plot size: <u>10</u>)				Prevalence Index = B/A = <u>#DIV/0!</u>	
1	<u>60</u>	<u>X</u>	<u>(FAC)</u>	Hydrophytic Vegetation Indicators:	
2	<u>10</u>		<u>FACU</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
3	<u>10</u>		<u>FACU</u>	<u>X</u> 2- Dominance Test is >50%	
4	<u>10</u>		<u>FACU</u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
5	<u>5</u>		<u>FAC</u>	<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6	<u>5</u>		<u>FACU</u>	<u> </u> 5- Wetland Non-Vascular Plants ¹	
7				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
8				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	<u>100</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
Woody Vine Stratum (plot size: <u> </u>)					
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks: **Grass is mowed.**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 3/4	100					Silt Loam	20% gravel
8-16	7.5YR 3/4	60	10YR 4/6	5	C	M	Loam	Fine; 20% gravel; mixed matrix
8-16	10YR 6/4	30	10YR 4/6	5	C	M	Loam	Fine; 20% gravel; mixed matrix

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
Soil is disturbed, but also there are no hydrology inputs outside of seasonal direct precipitation. At that point, the water infiltrates so quickly from being upslope that hydric soils cannot sustain.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): >16
 Saturation Present? Yes _____ No Depth (inches): >16
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/25/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 4
 Investigator(s): CM/CR Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): None Slope (%): 10
 Subregion (LRR): LRR A Lat: 45.3651 Long: -122.8283 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: <u>30</u>)			
1 <u>Populus balsamifera</u>	<u>20</u>	<u>X</u>	<u>FAC</u>
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>20</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>30</u>)			
1 <u>Rubus armeniacus</u>	<u>80</u>	<u>X</u>	<u>FAC</u>
2 <u>Populus balsamifera</u>	<u>20</u>	<u> </u>	<u>FAC</u>
3 <u>Cytisus scoparius</u>	<u>20</u>	<u> </u>	<u>(UPL)</u>
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>120</u>	= Total Cover	
Herb Stratum (plot size: <u>10</u>)			
1 <u>Phalaris arundinacea</u>	<u>10</u>	<u>X</u>	<u>FACW</u>
2 <u>Dactylis glomerata</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
3 <u>Equisetum arvense</u>	<u>10</u>	<u>X</u>	<u>FAC</u>
4 <u>Cirsium arvense</u>	<u>10</u>	<u>X</u>	<u>FAC</u>
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>40</u>	= Total Cover	
Woody Vine Stratum (plot size: <u> </u>)			
1 <u>Rubus ursinus</u>	<u>30</u>	<u>X</u>	<u>FACU</u>
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>
	<u>30</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>60</u>		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species <u> </u>	x 1 =	<u>0</u>
FACW species <u> </u>	x 2 =	<u>0</u>
FAC Species <u> </u>	x 3 =	<u>0</u>
FACU Species <u> </u>	x 4 =	<u>0</u>
UPL Species <u> </u>	x 5 =	<u>0</u>
Column Totals <u>0</u> (A)		<u>0</u> (B)

Prevalence Index = B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

X 1- Rapid Test for Hydrophytic Vegetation
 2- Dominance Test is >50%
 3-Prevalence Index is ≤ 3.0¹
 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
 5- Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	7.5YR 2.5/2	100					Silt Loam	
9-11	7.5YR 2.5/2	98	7.5YR 3/4	2	C	M	Silt Loam	Fine
11-16	7.5YR 2.5/2	90	7.5YR 3/4	10	C	M	Silt Loam	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____

Water Table Present? Yes _____ No **X** Depth (inches): **>16**

Saturation Present? Yes _____ No **X** Depth (inches): **>16**
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/26/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 5
 Investigator(s): CR/CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3652 Long: -122.8282 Datum: WGS84
 Soil Map Unit Name: Wapato silty clay loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u><i>Salix lasiandra</i></u>	<u>10</u>	<u>X</u>	<u>FACW</u>	That are OBL, FACW, or FAC: <u>6</u> (A)	
2 <u><i>Fraxinus latifolia</i></u>	<u>30</u>	<u>X</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
	<u>40</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Total % Cover of	
1 <u><i>Rubus armeniacus</i></u>	<u>35</u>	<u>X</u>	<u>FAC</u>	Multiply by:	
2 <u><i>Mahonia aquifolium</i></u>	<u>5</u>	<u> </u>	<u>FACU</u>	OBL Species <u> </u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
	<u>40</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u><i>Phalaris arundinacea</i></u>	<u>35</u>	<u>X</u>	<u>FACW</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u><i>Alopecurus arundinaceus</i></u>	<u>20</u>	<u>X</u>	<u>(FAC)</u>	Hydrophytic Vegetation Indicators:	
3 <u><i>Holcus lanatus</i></u>	<u>20</u>	<u>X</u>	<u>FAC</u>	1- Rapid Test for Hydrophytic Vegetation	
4 <u><i>Carex sp</i></u>	<u>10</u>	<u> </u>	<u>(UPL)</u>	<u>X</u> 2- Dominance Test is >50%	
5 <u><i>Dipsacus fullonum</i></u>	<u>5</u>	<u> </u>	<u>FAC</u>	3-Prevalence Index is ≤ 3.0 ¹	
6 <u><i>Juncus effusus</i></u>	<u>5</u>	<u> </u>	<u>FACW</u>	4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7 <u><i>Juncus patens</i></u>	<u>5</u>	<u> </u>	<u>FACW</u>	5- Wetland Non-Vascular Plants ¹	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>100</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	95	7.5YR 3/4	5	C	M	Silt Loam	Fine-Medium

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	_____
Water Table Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	<u>>13</u>
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	<u>>13</u>

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 9/22/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 6
 Investigator(s): JT/CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3664 Long: -122.8266 Datum: WGS84
 Soil Map Unit Name: Wapato silty clay loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>3</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>3</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>15</u>)				Prevalence Index Worksheet:	
1	<u>Rubus armeniacus</u>	<u>50</u>	<u>X</u>	<u>FAC</u>	Total % Cover of
2	<u>Rubus laciniatus</u>	<u>5</u>		<u>FACU</u>	Multiply by:
3	<u>Crataegus monogyna</u>	<u>2</u>		<u>FAC</u>	OBL Species <u> </u> x 1 = <u>0</u>
4					FACW species <u> </u> x 2 = <u>0</u>
5					FAC Species <u>65</u> x 3 = <u>195</u>
					FACU Species <u>70</u> x 4 = <u>280</u>
					UPL Species <u>20</u> x 5 = <u>100</u>
					Column Totals <u>155</u> (A) <u>575</u> (B)
	<u>57</u>	= Total Cover			Prevalence Index =B/A = <u>3.71</u>
Herb Stratum (plot size: <u>10</u>)				Hydrophytic Vegetation Indicators:	
1	<u>Dipsacus fullonum</u>	<u>60</u>	<u>X</u>	<u>FAC</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation
2	<u>Agrostis capillaris</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	<u>X</u> 2- Dominance Test is >50%
3	<u>Phalaris arundinacea</u>	<u>10</u>		<u>FACW</u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹
4					<u> </u> 4-Morphological Adaptations ¹ (provide supporting
5					data in Remarks or on a separate sheet)
6					<u> </u> 5- Wetland Non-Vascular Plants ¹
7					<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
8					¹ Indicators of hydric soil and wetland hydrology must be present, unless
	<u>100</u>	= Total Cover			disturbed or problematic.
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present?	
1				Yes <u>X</u>	No <u> </u>
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	2.5Y 3/2	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >16
 Saturation Present? Yes _____ No X Depth (inches): >16
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 9/22/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 7
 Investigator(s): JT/CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3663 Long: -122.8266 Datum: WGS84
 Soil Map Unit Name: Wapato silty clay loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>1</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>1</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u> </u>)				Prevalence Index Worksheet:	
1				Total % Cover of <u> </u> Multiply by:	
2				OBL Species <u> </u> x 1 = <u>0</u>	
3				FACW species <u> </u> x 2 = <u>0</u>	
4				FAC Species <u> </u> x 3 = <u>0</u>	
5				FACU Species <u> </u> x 4 = <u>0</u>	
	<u>0</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>100</u>	<u>X</u>	<u>FACW</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2				Hydrophytic Vegetation Indicators:	
3				1- Rapid Test for Hydrophytic Vegetation	
4				<u>X</u> 2- Dominance Test is >50%	
5				3-Prevalence Index is ≤ 3.0 ¹	
6				4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7				5- Wetland Non-Vascular Plants ¹	
8				Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>100</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks: **Fraxinus latifolia (FACW) is less than 1%.**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	95	10YR 4/6	3	C	M	Silt Loam	Fine
0-13			10YR 4/6	2	C	PL	Silt Loam	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:
Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): >13
Saturation Present? (includes capillary fringe) Yes No Depth (inches): >13

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/25/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 8
 Investigator(s): CM/CR Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope/Ditch Local relief (concave, convex, none): Concave Slope (%): 5
 Subregion (LRR): LRR A Lat: 45.3644 Long: -122.8281 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Quercus garryana</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	That are OBL, FACW, or FAC: <u>5</u> (A)	
2 <u>Pseudotsuga menziesii</u>	<u>10</u>	<u>X</u>	<u>FACU</u>	Total Number of Dominant	
3 <u>Corylus cornuta</u>	<u>10</u>	<u>X</u>	<u>FACU</u>	Species Across All Strata: <u>11</u> (B)	
4 <u>Salix scouleriana</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Percent of Dominant Species	
	<u>65</u>	= Total Cover		That are OBL, FACW, or FAC: <u>45%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1 <u>Spiraea douglasii</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	Total % Cover of	
2 <u>Cytisus scoparius</u>	<u>10</u>	<u>X</u>	<u>(UPL)</u>	Multiply by:	
3 <u>Mahonia aquifolium</u>	<u>10</u>	<u>X</u>	<u>FACU</u>	OBL Species	<u>0</u>
4 <u>Alnus rubra</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	FACW species	<u>0</u>
5 <u> </u>	<u>50</u>	= Total Cover		FAC Species	<u>0</u>
				FACU Species	<u>0</u>
				UPL Species	<u>0</u>
				Column Totals	<u>0</u> (A) <u>0</u> (B)
				Prevalence Index =B/A = <u>#DIV/0!</u>	
Herb Stratum (plot size: <u>10</u>)				Hydrophytic Vegetation Indicators:	
1 <u>Phalaris arundinacea</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
2 <u>Holcus lanatus</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	<u> </u> 2- Dominance Test is >50%	
3 <u>Galium aparine</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
4 <u>Dipsacus fullonum</u>	<u>5</u>		<u>FAC</u>	<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
5 <u>Poa pratensis</u>	<u>5</u>		<u>FAC</u>	<u> </u> 5- Wetland Non-Vascular Plants ¹	
6 <u> </u>				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
7 <u> </u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8 <u> </u>				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	
	<u>100</u>	= Total Cover			
Woody Vine Stratum (plot size: <u> </u>)					
1 <u> </u>					
2 <u> </u>					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u> </u>					

Remarks: **Trees continued: Alnus rubra (FAC) 5%.**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					Silt Loam	
4-12	10YR 2/2	98	10YR 3/3	2	C	M	Silt Loam	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> Fac-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations:
Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >12
Saturation Present? Yes _____ No X Depth (inches): >12
(includes capillary fringe)

Wetland Hydrology Present?
Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/25/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 9
 Investigator(s): CR/CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3644 Long: -122.8281 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>6</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>6</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1	<u>30</u>	<u>X</u>	<u>FACW</u>	Total % Cover of <u> </u> Multiply by:	
2	<u>10</u>	<u>X</u>	<u>FAC</u>	OBL Species <u> </u> x 1 = <u>0</u>	
3				FACW species <u> </u> x 2 = <u>0</u>	
4				FAC Species <u> </u> x 3 = <u>0</u>	
5				FACU Species <u> </u> x 4 = <u>0</u>	
	<u>40</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>25</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2	<u>20</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3	<u>20</u>	<u>X</u>	<u>FACW</u>	1- Rapid Test for Hydrophytic Vegetation	
4	<u>20</u>	<u>X</u>	<u>(FAC)</u>	<u>X</u> 2- Dominance Test is >50%	
5	<u>15</u>		<u>FACW</u>	3-Prevalence Index is ≤ 3.0 ¹	
6	<u>10</u>		<u>FACW</u>	4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7	<u>5</u>		<u>FAC</u>	5- Wetland Non-Vascular Plants ¹	
8				Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>115</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 3/2	87	7.5YR 4/6	10	C	M	Silt	Fine-medium
0-14			7.5YR 4/6	3	PL	M	Silt	Fine-medium

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches):

Water Table Present? Yes No Depth (inches): >14

Saturation Present? Yes No Depth (inches): >14
(includes capillary fringe)

Wetland Hydrology Present?

Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 8/25/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 10
 Investigator(s): CM/CR Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 5
 Subregion (LRR): LRR A Lat: 45.3635 Long: -122.8294 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>4</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>4</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1	<u>40</u>	<u>X</u>	<u>FAC</u>	Total % Cover of <u> </u> Multiply by:	
2	<u>40</u>	<u>X</u>	<u>FAC</u>	OBL Species <u> </u> x 1 = <u>0</u>	
3	<u>20</u>	<u>X</u>	<u>FAC</u>	FACW species <u> </u> x 2 = <u>0</u>	
4				FAC Species <u> </u> x 3 = <u>0</u>	
5				FACU Species <u> </u> x 4 = <u>0</u>	
	<u>100</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>90</u>	<u>X</u>	<u>FACW</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2				Hydrophytic Vegetation Indicators:	
3				1- Rapid Test for Hydrophytic Vegetation	
4				<u>X</u> 2- Dominance Test is >50%	
5				3-Prevalence Index is ≤ 3.0 ¹	
6				4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7				5- Wetland Non-Vascular Plants ¹	
8				Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>90</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>10</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	7.5YR 2.5/2	100					Silt Loam	
12-17	7.5YR 2.5/2	98	10YR 4/6	2	C	M	Silt Loam	Fine
17-20	10YR 3/2	95	10YR 4/6	5	C	M	Silt Loam	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>20**
 Saturation Present? Yes _____ No **X** Depth (inches): **>20**
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes **X** No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 11
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3648 Long: -122.8309 Datum: WGS84
 Soil Map Unit Name: Huberly silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>3</u> (A)	
2 <u>Arbutus menziesii</u>	<u>5</u>	<u>X</u>	<u>(UPL)</u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)	
3 _____				Percent of Dominant Species	
4 _____				That are OBL, FACW, or FAC: <u>43%</u> (A/B)	
	<u>25</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Total % Cover of _____ Multiply by:	
1 <u>Cytisus scoparius</u>	<u>20</u>	<u>X</u>	<u>(UPL)</u>	OBL Species _____ x 1 = <u>0</u>	
2 <u>Populus balsamifera</u>	<u>5</u>		<u>FAC</u>	FACW species _____ x 2 = <u>0</u>	
3 <u>Rubus armeniacus</u>	<u>5</u>		<u>FAC</u>	FAC Species _____ x 3 = <u>0</u>	
4 _____				FACU Species _____ x 4 = <u>0</u>	
5 _____				UPL Species _____ x 5 = <u>0</u>	
	<u>30</u>	= Total Cover		Column Totals <u>0</u> (A) <u>0</u> (B)	
Herb Stratum (plot size: <u>10</u>)				Prevalence Index = B/A = <u>#DIV/0!</u>	
1 <u>Hypericum perforatum</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
2 <u>Agrostis capillaris</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	_____ 1- Rapid Test for Hydrophytic Vegetation	
3 <u>Portulaca oleracea</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	_____ 2- Dominance Test is >50%	
4 <u>Anthoxanthum odoratum</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	_____ 3-Prevalence Index is ≤ 3.0 ¹	
5 _____				_____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6 _____				_____ 5- Wetland Non-Vascular Plants ¹	
7 _____				_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
8 _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	<u>100</u>	= Total Cover		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
Woody Vine Stratum (plot size: _____)					
1 _____					
2 _____					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 2.5/2	99	5YR 3/4	1	C	M	Loam	Fine
5-6	10YR 3/3	100					Sand	
6-10	10YR 3/3	40					Sandy Clay Loam	Mixed Matrix
6-10	10YR 5/3	40					Sandy Clay Loam	Mixed Matrix
6-10	10YR 4/2	20					Sandy Clay Loam	Mixed Matrix
10-20	7.5YR 2.5/3	100					Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 12
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3651 Long: -122.8326 Datum: WGS84
 Soil Map Unit Name: Quatama loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>5</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
	<u>5</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Total % Cover of	
1 <u>Populus balsamifera</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Multiply by:	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL Species <u> </u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
	<u>10</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Lotus corniculatus</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u>Agrostis capillaris</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3 <u>Holcus lanatus</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	1- Rapid Test for Hydrophytic Vegetation	
4 <u>Anthoxanthum odoratum</u>	<u>5</u>	<u> </u>	<u>FACU</u>	<u>X</u> 2- Dominance Test is >50%	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	3-Prevalence Index is ≤ 3.0 ¹	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	5- Wetland Non-Vascular Plants ¹	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>45</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>55</u>					

Remarks: **Vegetation was only considered within the excavated ditch regime, so forested areas adjacent (Populus balsamifera) were not included in the canopy.**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/3	100					Sandy Loam	
8-13	10YR 3/4	90	10YR 3/6	10	C	M	Loamy Sand	Coarse
13-17	10YR 3/4	85	10YR 3/6	10	C	M	Loamy Sand	Coarse
13-17			10YR 6/4	5	C	M	Loamy Sand	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks:
Old remnant ditch present. Still appears to have storm flow periodically based on drainage patterns and soil cracks.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>17**
 Saturation Present? (includes capillary fringe) Yes **X** No _____ Depth (inches): **0-1;>17**

Wetland Hydrology Present?
 Yes **X** No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 13
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3652 Long: -122.8319 Datum: WGS84
 Soil Map Unit Name: Huberly silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>38%</u> (A/B)
1	<u>20</u>	<u>X</u>	<u>FAC</u>	
2				
3				
4				
	<u>20</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1	<u>5</u>	<u>X</u>	<u>(UPL)</u>	
2	<u>5</u>	<u>X</u>	<u>FAC</u>	
3				
4				
5				
	<u>10</u>	= Total Cover		
Herb Stratum (plot size: <u>10</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1- Rapid Test for Hydrophytic Vegetation <u> </u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1	<u>5</u>		<u>FACU</u>	
2	<u>10</u>	<u>X</u>	<u>FACU</u>	
3	<u>20</u>	<u>X</u>	<u>FAC</u>	
4	<u>5</u>		<u>FACU</u>	
5	<u>10</u>	<u>X</u>	<u>FACU</u>	
6	<u>20</u>	<u>X</u>	<u>FACU</u>	
7	<u>5</u>		<u>FAC</u>	
8	<u>10</u>	<u>X</u>	<u>FACU</u>	
	<u>85</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1				
2				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>15</u>				

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/4	100					Loam	
6-14	10YR 3/4	70	10YR 4/2	10	D	M	Loamy Sand	Coarse; mixed matrix
6-14	10YR 3/3	20					Loamy Sand	Mixed matrix

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The matrix in this area is mixed, but generally high in chroma. There are no iron concentrations here, but rather a homogenous mixture of high chroma matrices.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >14
 Saturation Present? Yes _____ No X Depth (inches): >14
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 14
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3656 Long: -122.8317 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>5</u> (A)	
2 _____	_____	_____	_____	Total Number of Dominant	
3 _____	_____	_____	_____	Species Across All Strata: <u>8</u> (B)	
4 _____	_____	_____	_____	Percent of Dominant Species	
	<u>30</u>	= Total Cover		That are OBL, FACW, or FAC: <u>63%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Prevalence Index Worksheet:	
1 <u>Populus balsamifera</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Total % Cover of _____ Multiply by:	
2 <u>Cytisus scoparius</u>	<u>5</u>	<u>X</u>	<u>(UPL)</u>	OBL Species _____ x 1 = <u>0</u>	
3 <u>Rubus armeniacus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	FACW species _____ x 2 = <u>0</u>	
4 <u>Salix sp</u>	<u>2</u>	_____	<u>(UPL)</u>	FAC Species _____ x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU Species _____ x 4 = <u>0</u>	
	<u>22</u>	= Total Cover		UPL Species _____ x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Agrostis capillaris</u>	<u>60</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u>Holcus lanatus</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3 <u>Leontodon saxatilis</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	_____ 1- Rapid Test for Hydrophytic Vegetation	
4 <u>Hypochaeris radicata</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	<u>X</u> 2- Dominance Test is >50%	
5 <u>Anthoxanthum odoratum</u>	<u>10</u>	_____	<u>FACU</u>	_____ 3-Prevalence Index is ≤ 3.0 ¹	
6 <u>Hypericum perforatum</u>	<u>10</u>	_____	<u>FACU</u>	_____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7 <u>Lotus corniculatus</u>	<u>5</u>	_____	<u>FAC</u>	_____ 5- Wetland Non-Vascular Plants ¹	
8 _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>145</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/3	98	10YR 5/6	2	C	M	Loamy Sand	Fine
5-10	2.5Y 5/3	95	10YR 5/6	5	C	M	Loamy Sand	Medium
10-12	10YR 3/3	100					Sand	
12-18	2.5Y 5/2	90	10YR 4/6	10	C	M	Sand	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Depleted below 12 inches but not below dark surface. This area appears to be dried out but still has relict redox features in the soil. The entire area is becoming inundated with Scotch broom and other upland shrubs.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >18
 Saturation Present? Yes _____ No X Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 15
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3655 Long: -122.8321 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>6</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>86%</u> (A/B)	
	<u>5</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Total % Cover of	
1 <u>Crataegus monogyna</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	Multiply by:	
2 <u>Rubus armeniacus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	OBL Species <u> </u> x 1 = <u>0</u>	
3 <u>Prunus cerasifera</u>	<u>5</u>	<u>X</u>	<u>(UPL)</u>	FACW species <u> </u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
	<u>15</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Agrostis capillaris</u>	<u>50</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u>Alopecurus pratensis</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3 <u>Holcus lanatus</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
4 <u>Dipsacus fullonum</u>	<u>10</u>	<u> </u>	<u>FAC</u>	<u>X</u> 2- Dominance Test is >50%	
5 <u>Hypericum perforatum</u>	<u>10</u>	<u> </u>	<u>FACU</u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
6 <u>Anthoxanthum odoratum</u>	<u>10</u>	<u> </u>	<u>FACU</u>	<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7 <u>Portulaca oleracea</u>	<u>5</u>	<u> </u>	<u>FAC</u>	<u> </u> 5- Wetland Non-Vascular Plants ¹	
8 <u>Madia glomerata</u>	<u>5</u>	<u> </u>	<u>FACU</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>130</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/3	100					Silt Loam	
6-16	10YR 3/6	96	10YR 5/1	2	D	M	Loamy Sand	Fine
6-16			7.5YR 4/6	2	C	M	Loamy Sand	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>16**
 Saturation Present? Yes _____ No **X** Depth (inches): **>16**
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 16
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3658 Long: -122.8317 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: _____)				Number of Dominant Species	
1	_____	_____	_____	That are OBL, FACW, or FAC: <u>2</u> (A)	
2	_____	_____	_____	Total Number of Dominant	
3	_____	_____	_____	Species Across All Strata: <u>2</u> (B)	
4	_____	_____	_____	Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: _____)				Prevalence Index Worksheet:	
1	_____	_____	_____	Total % Cover of _____ Multiply by:	
2	_____	_____	_____	OBL Species _____ x 1 = <u>0</u>	
3	_____	_____	_____	FACW species _____ x 2 = <u>0</u>	
4	_____	_____	_____	FAC Species _____ x 3 = <u>0</u>	
5	_____	_____	_____	FACU Species _____ x 4 = <u>0</u>	
	<u>0</u>	= Total Cover		UPL Species _____ x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>75</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2	<u>25</u>	<u>X</u>	<u>FACW</u>		
3	_____	_____	_____		
4	_____	_____	_____		
5	_____	_____	_____		
6	_____	_____	_____		
7	_____	_____	_____		
8	_____	_____	_____		
	<u>100</u>	= Total Cover			
Woody Vine Stratum (plot size: _____)				Hydrophytic Vegetation Indicators:	
1	_____	_____	_____	_____ 1- Rapid Test for Hydrophytic Vegetation	
2	_____	_____	_____	<u>X</u> 2- Dominance Test is >50%	
	<u>0</u>	= Total Cover		_____ 3-Prevalence Index is ≤ 3.0 ¹	
% Bare Ground in Herb Stratum <u>0</u>				_____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
				_____ 5- Wetland Non-Vascular Plants ¹	
				_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR 3/2	100					Silt Loam	
4-10	7.5YR 3/2	60	5YR 3/4	3	C	M	Silt Loam	Coarse/mixed matrix
4-10	10YR 3/3	36	5YR 3/4	1	C	M	Silt Loam	Coarse/mixed matrix
10-16	7.5YR 3/2	98	7.5YR 3/4	2	C	M	Loam	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>16**
 Saturation Present? Yes _____ No **X** Depth (inches): **>16**
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 17
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3658 Long: -122.8316 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>1</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>1</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u> </u>)				Prevalence Index Worksheet:	
1				Total % Cover of	
2				Multiply by:	
3				OBL Species <u> </u> x 1 = <u>0</u>	
4				FACW species <u> </u> x 2 = <u>0</u>	
5				FAC Species <u> </u> x 3 = <u>0</u>	
	<u>0</u>	= Total Cover		FACU Species <u> </u> x 4 = <u>0</u>	
				UPL Species <u> </u> x 5 = <u>0</u>	
				Column Totals <u>0</u> (A) <u>0</u> (B)	
Herb Stratum (plot size: <u>10</u>)				Prevalence Index =B/A = <u>#DIV/0!</u>	
1	<u>90</u>	<u>X</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators:	
2	<u>10</u>		<u>FAC</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
3				<u>X</u> 2- Dominance Test is >50%	
4				<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
5				<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6				<u> </u> 5- Wetland Non-Vascular Plants ¹	
7				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
8				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	<u>100</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
Woody Vine Stratum (plot size: <u> </u>)					
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/2	100					Loam	
5-12	7.5YR 3/2	95	7.5YR 4/6	5	C	M	Sandy Loam	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:
 Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): >12
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): >12

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 18
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3664 Long: -122.8325 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Populus balsamifera</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	That are OBL, FACW, or FAC: <u>3</u> (A)	
2 <u>Alnus rubra</u>	<u>1</u>	<u> </u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>60%</u> (A/B)	
	<u>6</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				Total % Cover of	
1 <u>Rubus armeniacus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	Multiply by:	
2 <u>Cytisus scoparius</u>	<u>5</u>	<u>X</u>	<u>(UPL)</u>	OBL Species <u> </u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
	<u>10</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Anthoxanthum odoratum</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	Prevalence Index = B/A = <u>#DIV/0!</u>	
2 <u>Agrostis capillaris</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3 <u>Hypericum perforatum</u>	<u>20</u>	<u> </u>	<u>FACU</u>	1- Rapid Test for Hydrophytic Vegetation	
4 <u>Madia glomerata</u>	<u>10</u>	<u> </u>	<u>FACU</u>	<u>X</u> 2- Dominance Test is >50%	
5 <u>Leucanthemum vulgare</u>	<u>10</u>	<u> </u>	<u>FACU</u>	3-Prevalence Index is ≤ 3.0 ¹	
6 <u>Daucus carota</u>	<u>10</u>	<u> </u>	<u>FACU</u>	4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7 <u>Plantago lanceolata</u>	<u>5</u>	<u> </u>	<u>FACU</u>	5- Wetland Non-Vascular Plants ¹	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>115</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/6	100					Loam	
2-6	10YR 3/6	99	10YR 4/2	1	D	M	Loam	Fine
6-16	10YR 4/3	95	5YR 3/4	5	C	M	Loamy Sand	Fine

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:
 Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>16**
 Saturation Present? Yes _____ No **X** Depth (inches): **>16**
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 19
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR A Lat: 45.3664 Long: -122.8325 Datum: WGS84
 Soil Map Unit Name: Aloha silt loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>1</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: <u>1</u> (B)	
4				Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: <u> </u>)				Prevalence Index Worksheet:	
1				Total % Cover of <u> </u> Multiply by:	
2				OBL Species <u> </u> x 1 = <u>0</u>	
3				FACW species <u> </u> x 2 = <u>0</u>	
4				FAC Species <u> </u> x 3 = <u>0</u>	
5				FACU Species <u> </u> x 4 = <u>0</u>	
	<u>0</u>	= Total Cover		UPL Species <u> </u> x 5 = <u>0</u>	
Herb Stratum (plot size: <u>10</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>100</u>	<u>X</u>	<u>FACW</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2	<u>5</u>		<u>FAC</u>		
3					
4					
5					
6					
7					
8					
	<u>105</u>	= Total Cover			
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Indicators:	
1				<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
2				<u>X</u> 2- Dominance Test is >50%	
	<u>0</u>	= Total Cover		<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
% Bare Ground in Herb Stratum <u>0</u>				<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
				<u> </u> 5- Wetland Non-Vascular Plants ¹	
				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	7.5YR 2.5/2	93	7.5YR 4/6	5	C	M	Sandy Loam	Fine
0-7			7.5YR 4/6	2	C	PL	Sandy Loam	Fine
7-16	7.5YR 3/2	90	7.5YR 3/4	10	C	M	Loamy Sand	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input checked="" type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): >16
 Saturation Present? Yes No Depth (inches): >16
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Sherwood Industrial Park City/County: Sherwood/Washington Sampling Date: 10/6/2021
 Applicant/Owner: OWRA Sherwood, LLC State: OR Sampling Point: 20
 Investigator(s): CM Section, Township, Range: Section 29D, Township 2South, Range 1West
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR): LRR A Lat: 45.3670 Long: -122.8308 Datum: WGS84
 Soil Map Unit Name: Quatama loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation X Soil or Hydrology X significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y
 Are vegetation Soil or Hydrology naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks: **Precipitation is below normal, which is now common. As such, we make sure to evaluate a dry-season water table in areas of lower topography, or in areas where hydrophytic vegetation and hydric soils are present. The site is surrounded by new development. It is our BPJ that hydrology is slowly being diverted through stormwater infrastructure and storm facilities. The geomorphic position of gradual upland slopes on site are not conducive to retaining water, nor do they receive continual sheet flow from pervious upper slopes as before.**

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Photinia sp</u>	<u>20</u>	<u>X</u>	<u>(UPL)</u>	That are OBL, FACW, or FAC: <u>2</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Species Across All Strata: <u>4</u> (B)	
4 <u> </u>	<u>20</u>	<u> </u>	<u> </u>	Percent of Dominant Species	
	<u>20</u>	<u> </u>	<u> </u>	That are OBL, FACW, or FAC: <u>50%</u> (A/B)	
	<u>20</u>	<u> </u>	<u> </u>	Prevalence Index Worksheet:	
	<u>20</u>	<u> </u>	<u> </u>	Total % Cover of <u> </u> Multiply by:	
Sapling/Shrub Stratum (plot size: <u>30</u>)				OBL Species <u> </u> x 1 = <u>0</u>	
1 <u>Rubus armeniacus</u>	<u>100</u>	<u>X</u>	<u>FAC</u>	FACW species <u> </u> x 2 = <u>0</u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC Species <u> </u> x 3 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU Species <u> </u> x 4 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL Species <u> </u> x 5 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals <u>0</u> (A) <u>0</u> (B)	
	<u>100</u>	<u> </u>	<u> </u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
	<u>100</u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators:	
Herb Stratum (plot size: <u>10</u>)				1- Rapid Test for Hydrophytic Vegetation	
1 <u>Daucus carota</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	2- Dominance Test is >50%	
2 <u>Cirsium arvense</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	3-Prevalence Index is ≤ 3.0 ¹	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	4-Morphological Adaptations ¹ (provide supporting	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	data in Remarks or on a separate sheet)	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	5- Wetland Non-Vascular Plants ¹	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	disturbed or problematic.	
	<u>10</u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	
	<u>10</u>	<u> </u>	<u> </u>		
Woody Vine Stratum (plot size: <u> </u>)					
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u>	<u> </u>	<u> </u>		
	<u>0</u>	<u> </u>	<u> </u>		
% Bare Ground in Herb Stratum <u>90</u>					
Remarks:					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	7.5YR 3/2	99	7.5YR 3/4	1	C	M	Loamy Sand	Fine
11-16	10YR 3/3	94	7.5YR 3/4	5	C	M	Loamy Sand	Coarse
11-16			10YR 2/1	1	C	M	Loamy Sand	Coarse

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils³:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): >16

Saturation Present? Yes _____ No Depth (inches): >16
(includes capillary fringe)

Wetland Hydrology Present?

Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

Appendix C

Study Area Photos





Photo A:

Looking southwest at sample points 8 and 9 and the east side of Wetland A.

Photo date: September 22, 2021

Photo B:

Looking south at past trunk sewer work along Rock Creek .

Photo date: August 25, 2021



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10/20/2021



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Photo documentation

Sherwood Industrial Park Phase 3 Development Site, Sherwood, Oregon



Photo C:

Looking east where a storm culvert outfalls toward Rock Creek.

Photo date: September 22, 2021

Photo D:

Looking southwest at sample point 3 with the storm detention pond in the background.

Photo date: September 22, 2021



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Wilsonville, OR 97070

Photo documentation

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Photo E:

Looking north at Wetland A.

Photo date: August 25, 2021

Photo F:

Looking south at sample points 6 and 7.

Photo date: August 25, 2021



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Wilsonville, OR 97070

Photo documentation

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Photo G:

Looking northeast at the wetland terrace adjacent to Rock Creek.

Photo date: August 25, 2021

Photo H:

Looking southeast at sample points 8 and 9 and the wetland ditch.

Photo date: August 25, 2021



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Photo documentation

Sherwood Industrial Park Phase 3 Development Site, Sherwood, Oregon



Photo I:

Looking northeast at sample point 10 in an upland ditch.

Photo date: August 25, 2021

Photo J:

Looking southwest at sample point 11 .

Photo date: October 6, 2021



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Photo documentation

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Photo K:

Looking north at sample point 12 in a remnant ditch.

Photo date: October 6, 2021

Photo L:

Looking northwest at sample point 13 in a remnant ditch.

Photo date: October 6, 2021



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9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

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Photo M:

Looking south at sample point 14 in a low-lying upland area adjacent to an old stockpile.

Photo date: October 6, 2021

Photo N:

Looking northwest at sample point 15 and Wetland B in the background.

Photo date: October 6, 2021



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9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

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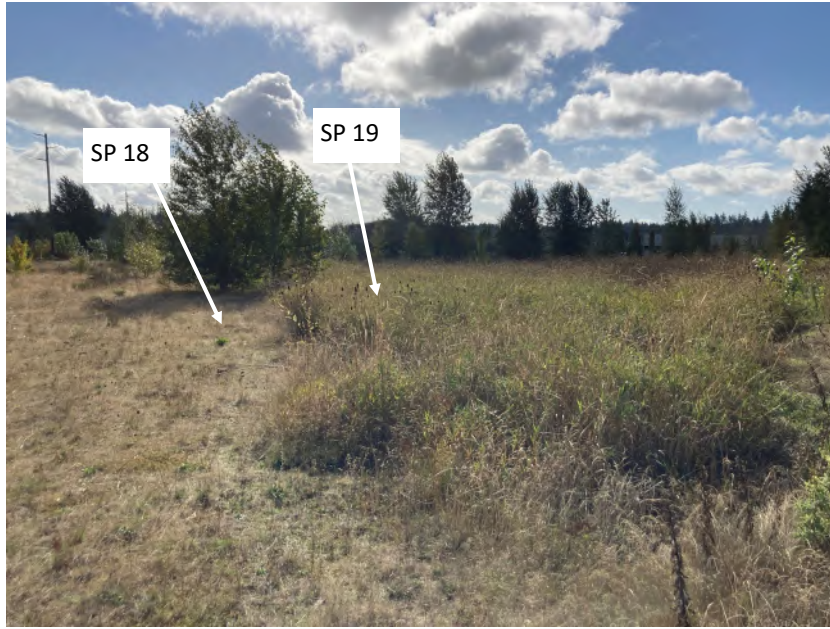


Photo O:

Looking southeast at Wetland B. Sample Points 18 and 19 are in the foreground.

Photo date: October 6, 2021

Photo P:

Looking northeast at an upland ditch in the western study area.

Photo date: October 6, 2021



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Photo documentation

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Photo Q:

Looking west at sample point 20 in an upland ditch.

Photo date: October 6, 2021

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Wilsonville, OR 97070

Photo documentation

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